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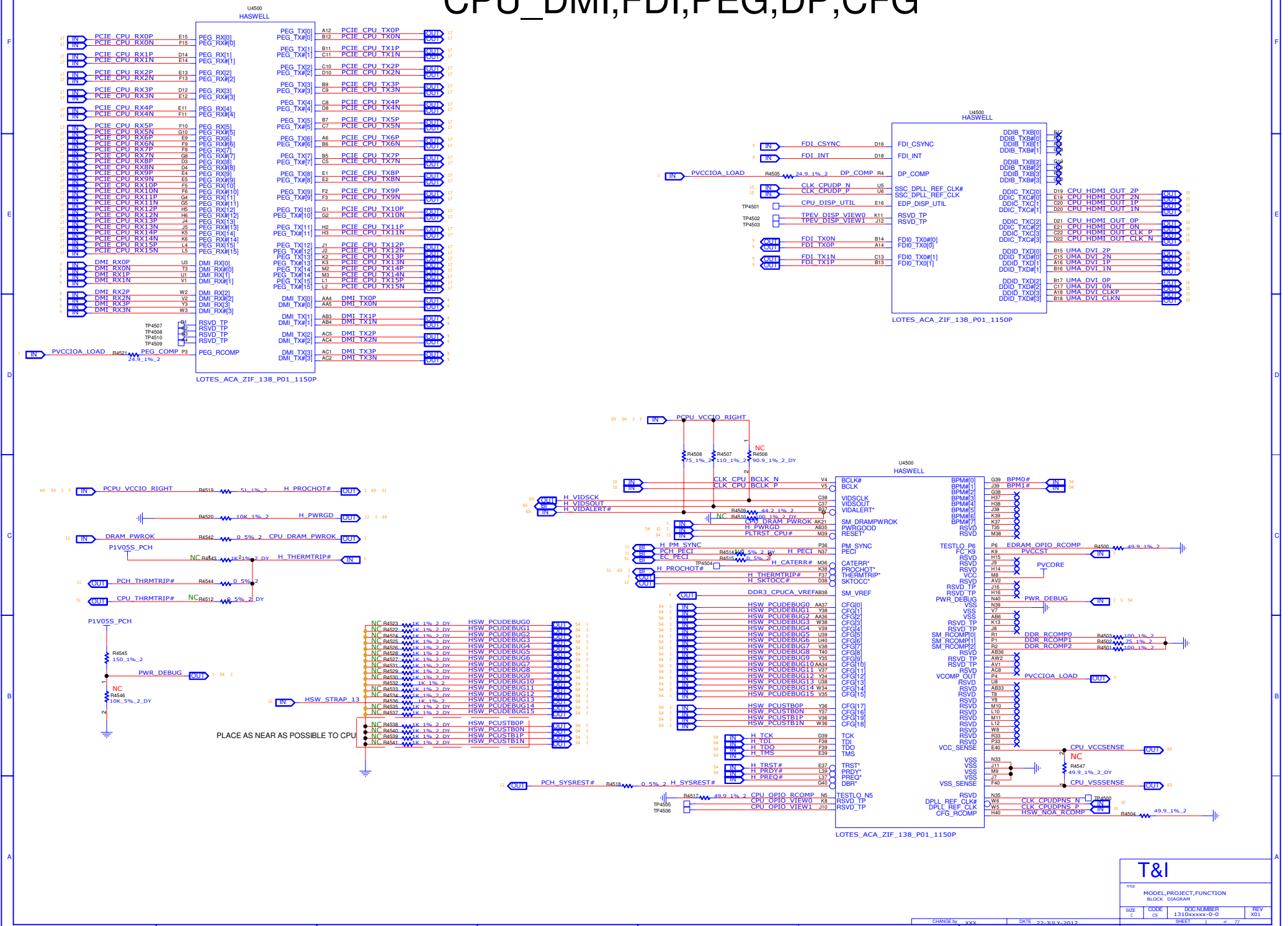
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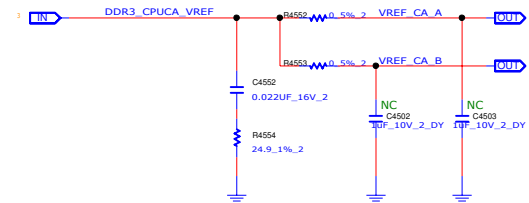
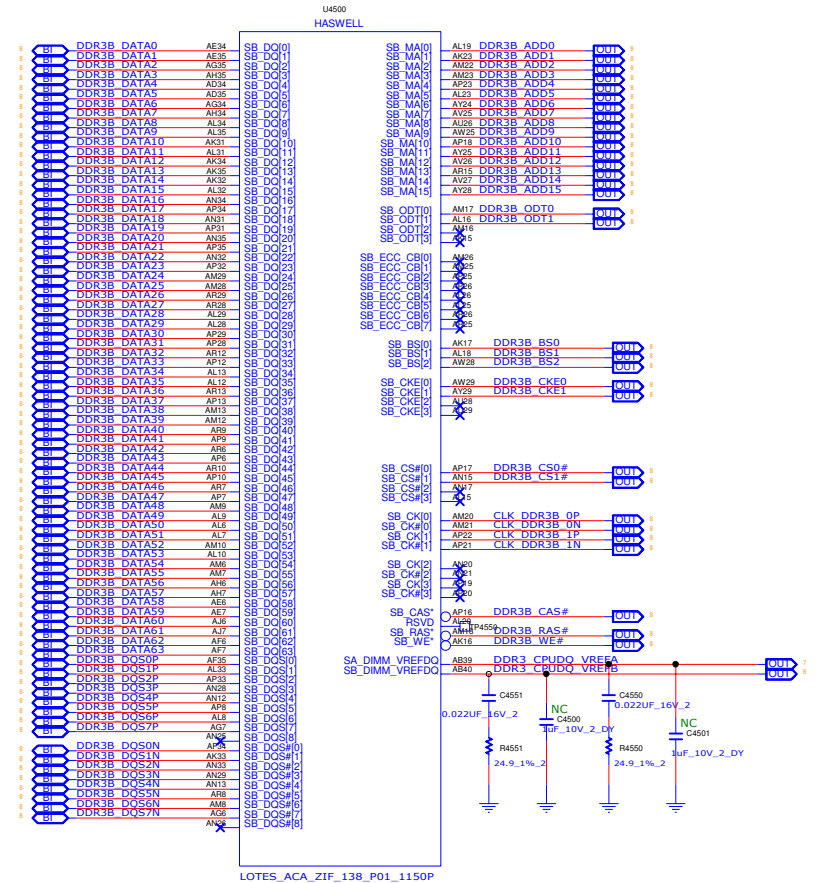
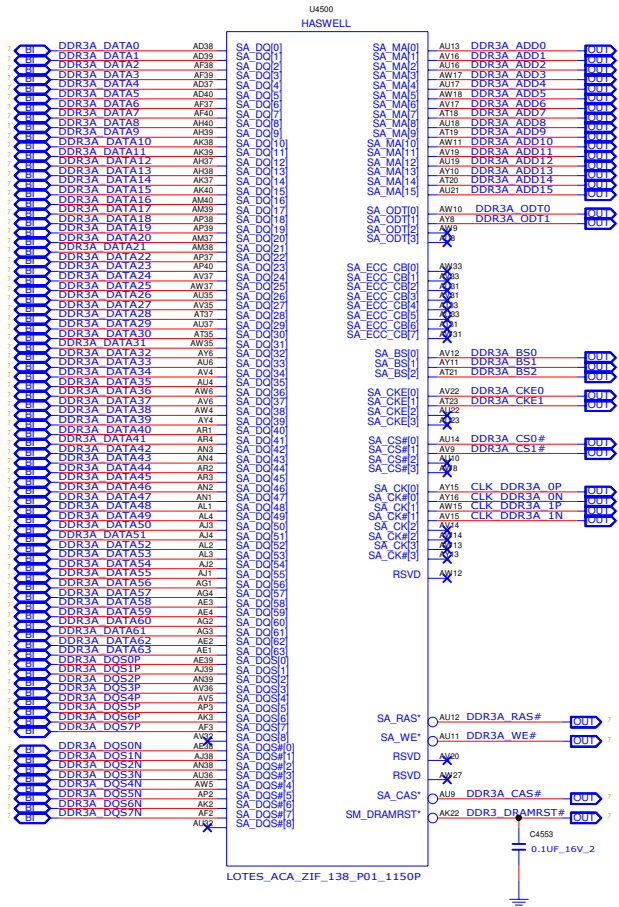
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## CPU\_DMI,FDI,PEG,DP,CFG



# CPU DDR3 A&B



T&I

TITLE			
MODEL/PROJECT/FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
E	CS	1310XXXX-0-0	X01
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A B C D E F



A	B	C	D	E	F
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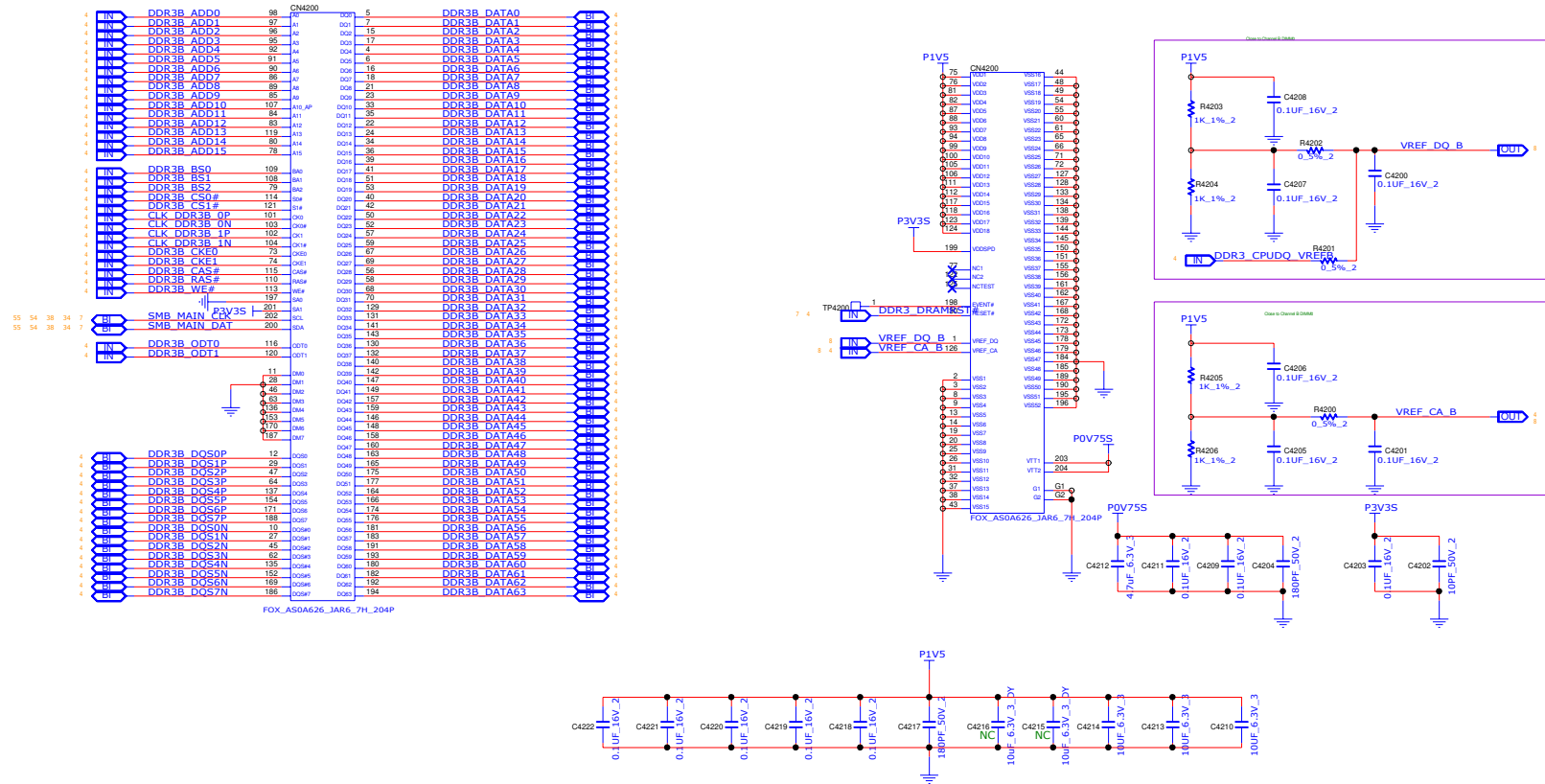


CHANGE by xxx	DATE 22-JULY-2012
---------------	-------------------

## 1



# CHB DIMM0

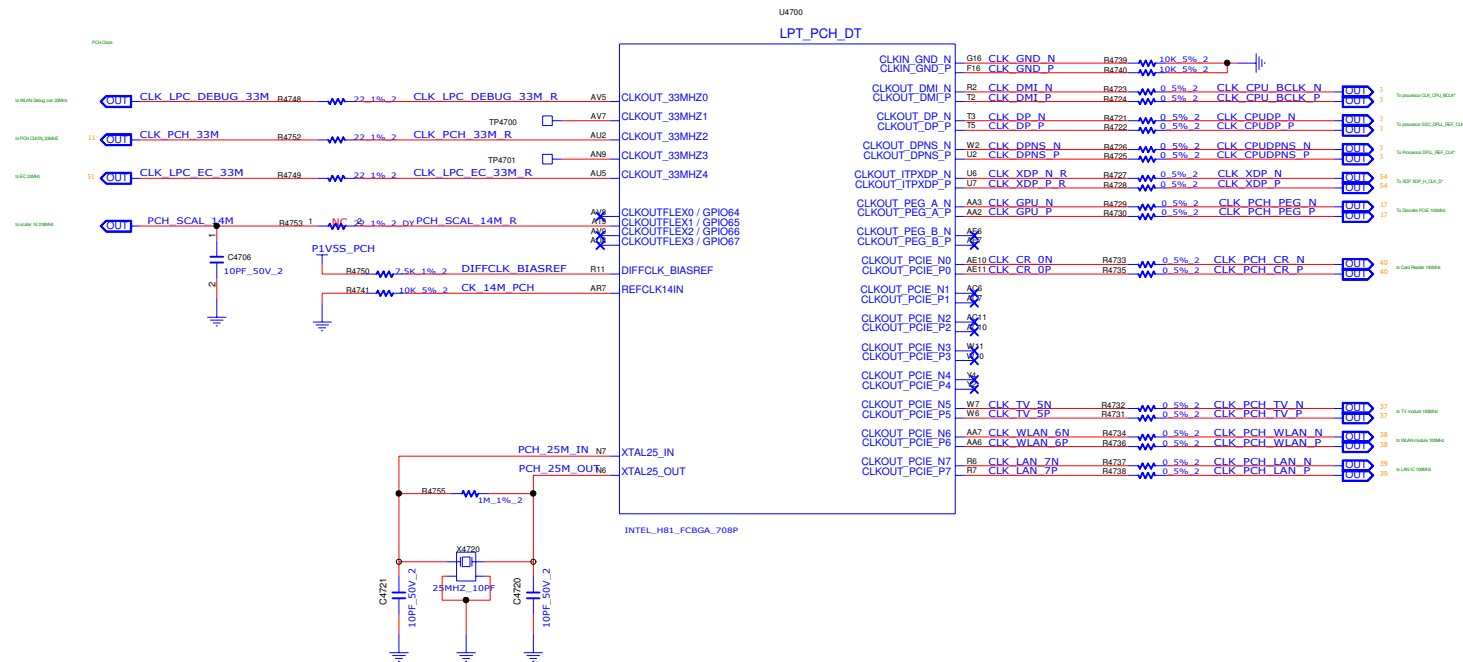
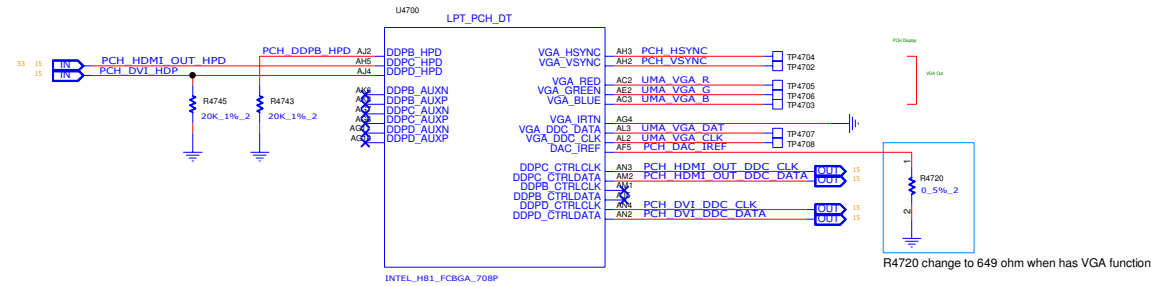




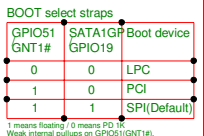
A	B	C	D	E	F
---	---	---	---	---	---

A

# PCH\_HPDP/VGA

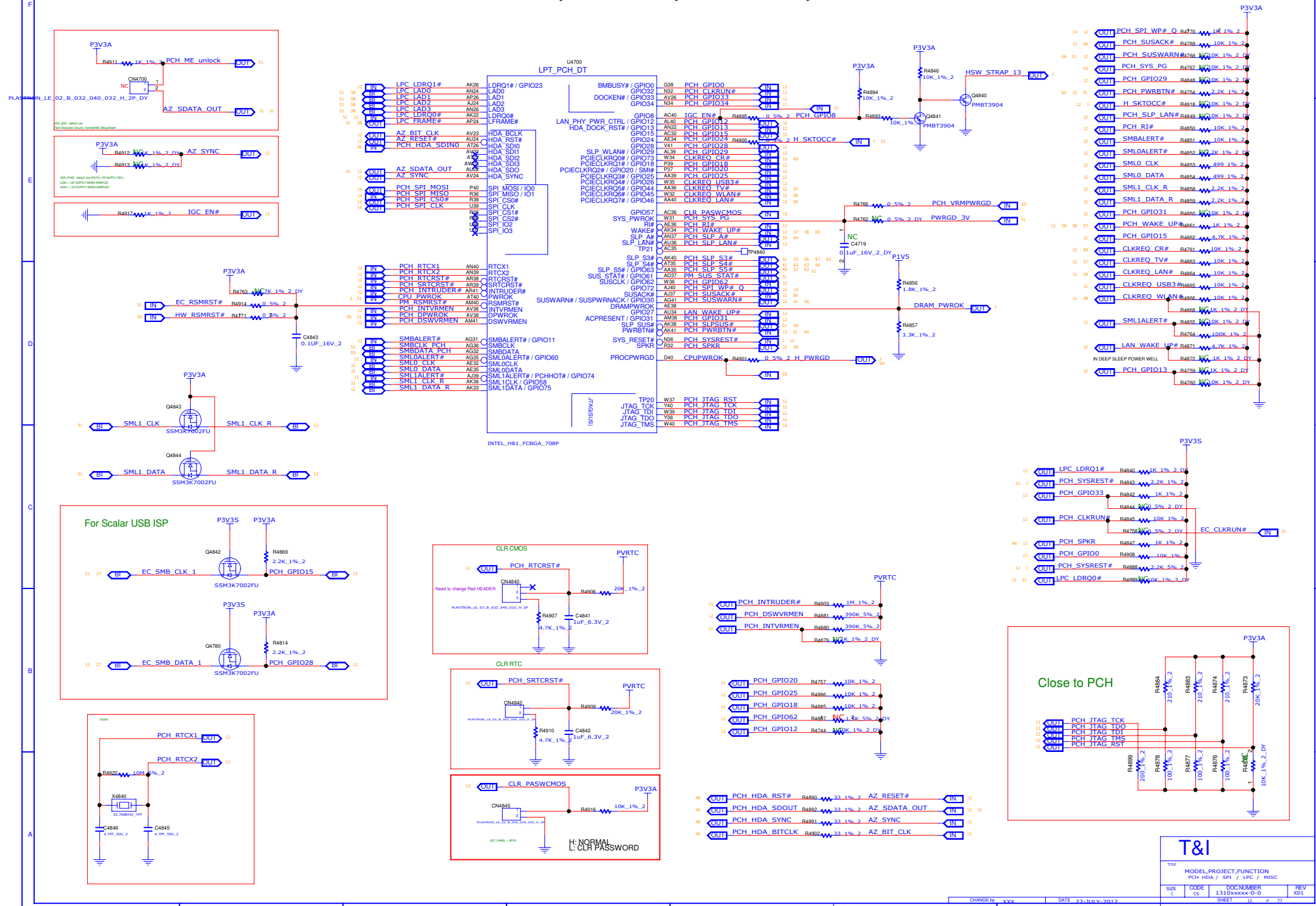


## F

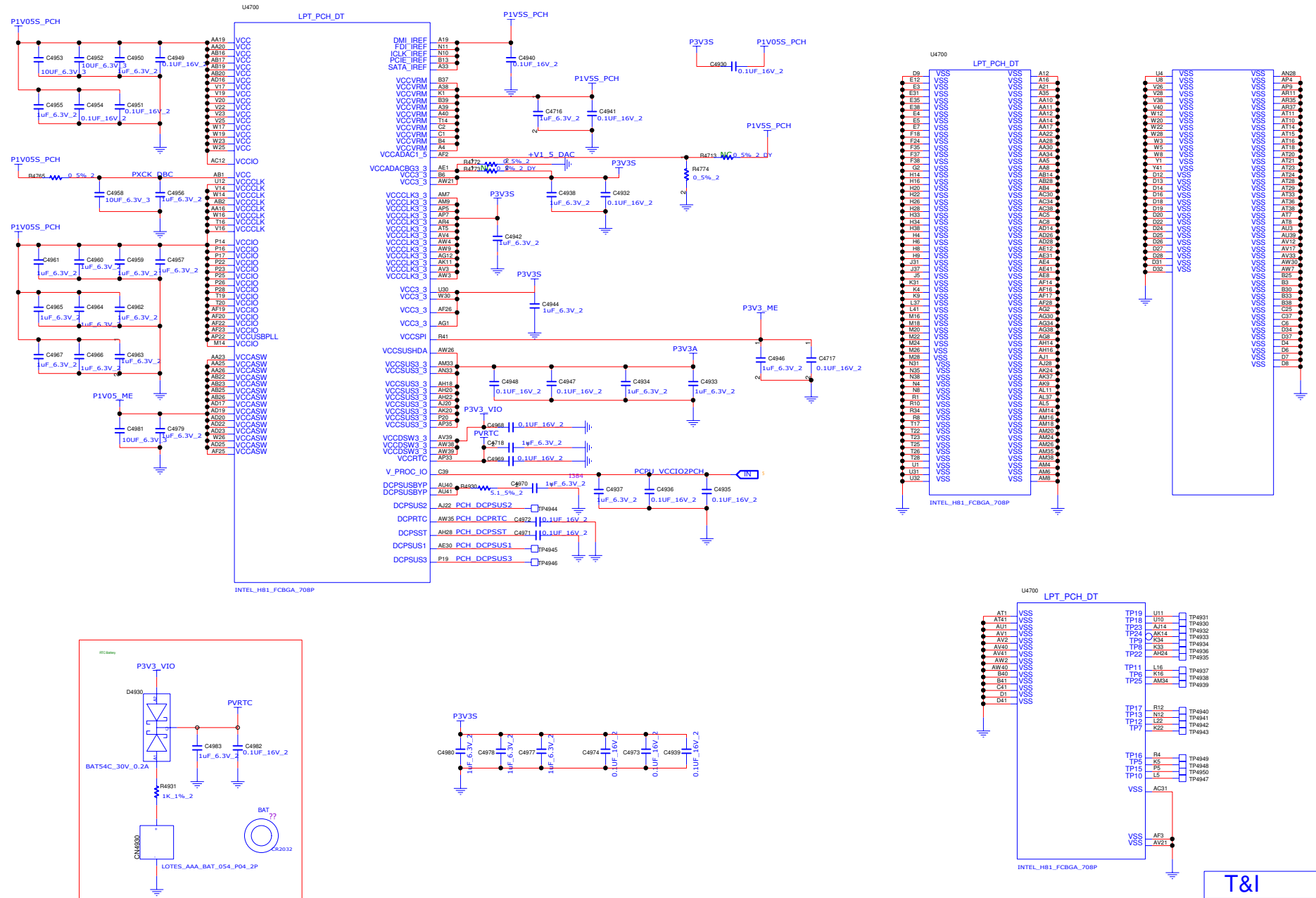


CHANGE by	xxx	DATE	22-JULY-2012
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# PCH HDA , SPI , LPC , MISC



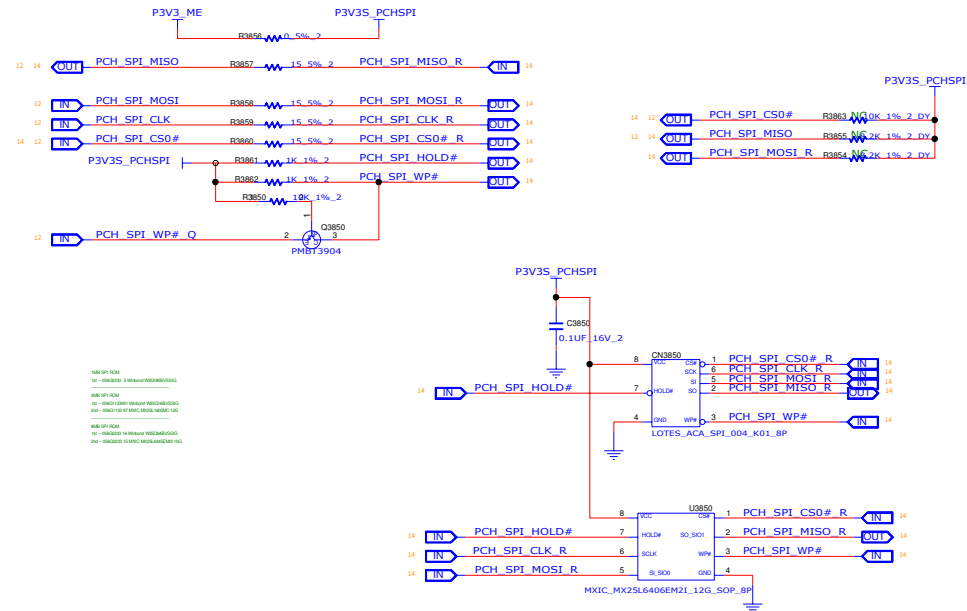
# PCH\_PWR, GND



T&I

TITLE				
MODEL, PROJECT, FUNCTION				
BLOCK DIAGRAM				
SIZE	CODE	DOC NUMBER	REV	
E	CS	1310XXXXX-0-0	X01	
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6008 SPI ROM



```

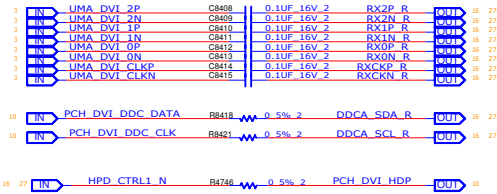
IBM SP1 ROM
1st - 05602023 5 Winton W5602023V5503
-----
IBM SP1 ROM
1st - 0560213055 Winton W56021305503
2nd - 05602130 67 M0C M05R.465M0-130
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IBM SP1 ROM
1st - 05602223 14 Winton W5602223V5503
2nd - 05602223 15 M0C M05R.4445EM0-15

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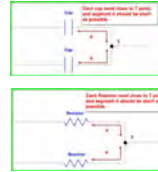
TITLE			
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SIZE C	CODE CS	DOC NUMBER 1310xxxxxx-0-0	REV X01
SHEET 14 of 77			

# UMA OPTION

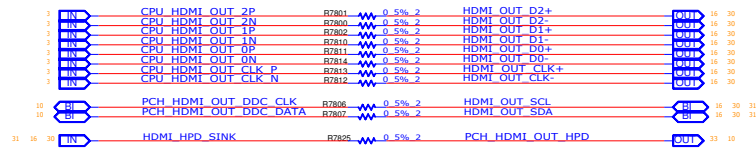
## To Scalar



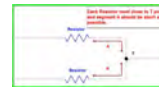
Layout note:



## HDMI OUT



Layout note:



## For GPU DVI disable

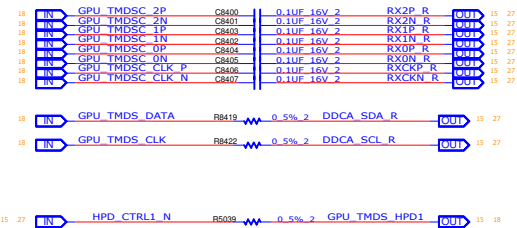


T&I

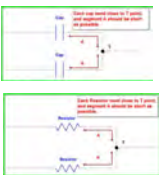
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SIZE	CODE	DOC NUMBER	REV
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SHEET		1	27

# GPU OPTION

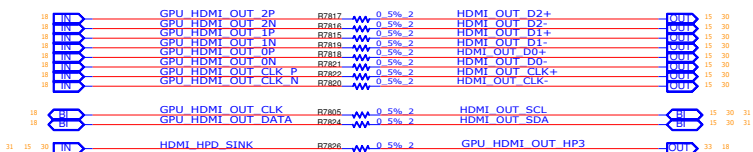
## To Scalar



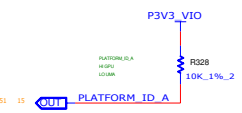
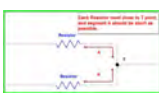
Layout note:



## HDMI OUT



Layout note:



T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXX-0-0	X01
SHEET		36	of 77



Layout note:

Each cap place to close to GPU U5000

U5000

PART 1 OF 9

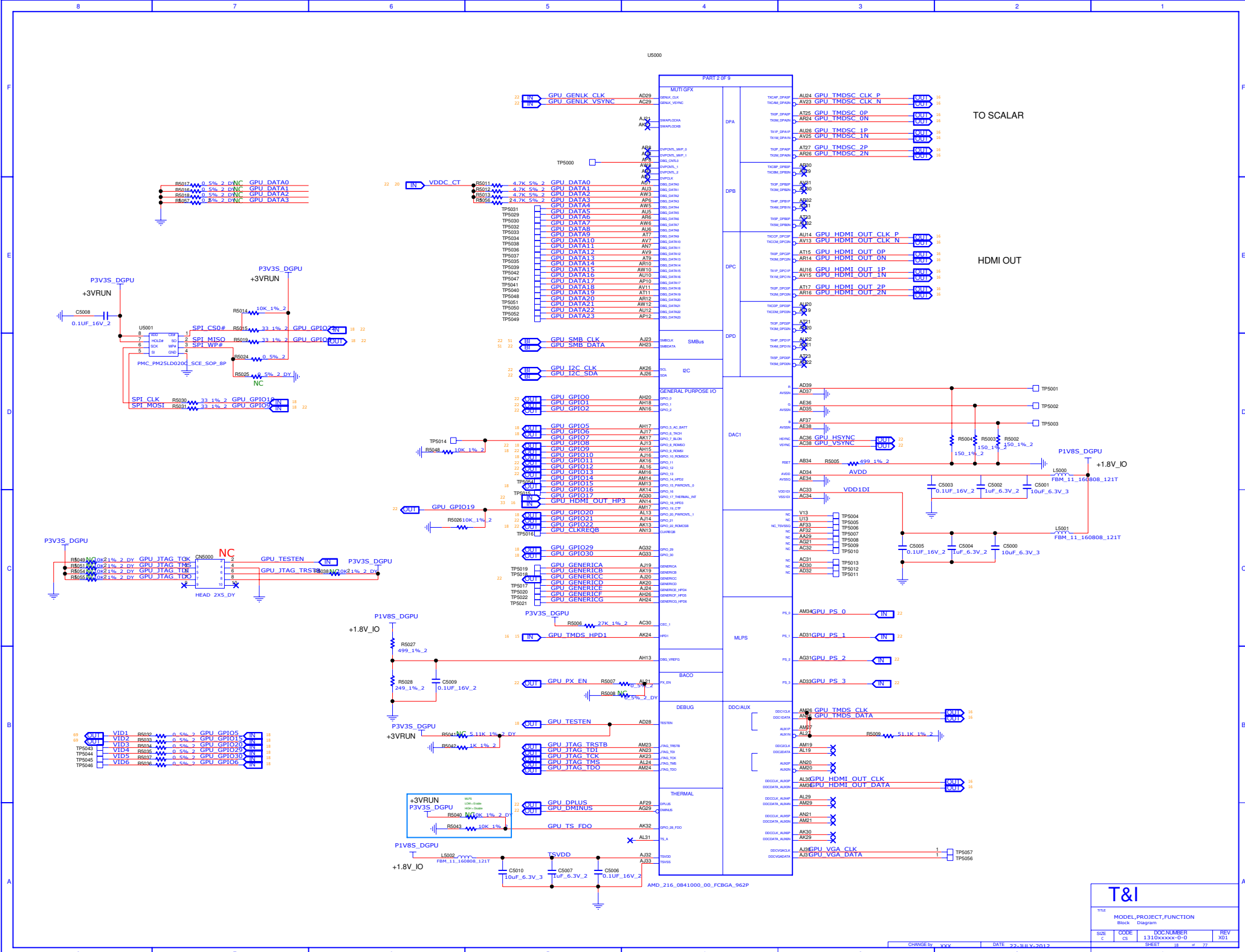
PCIEXPRESS INTERFACE

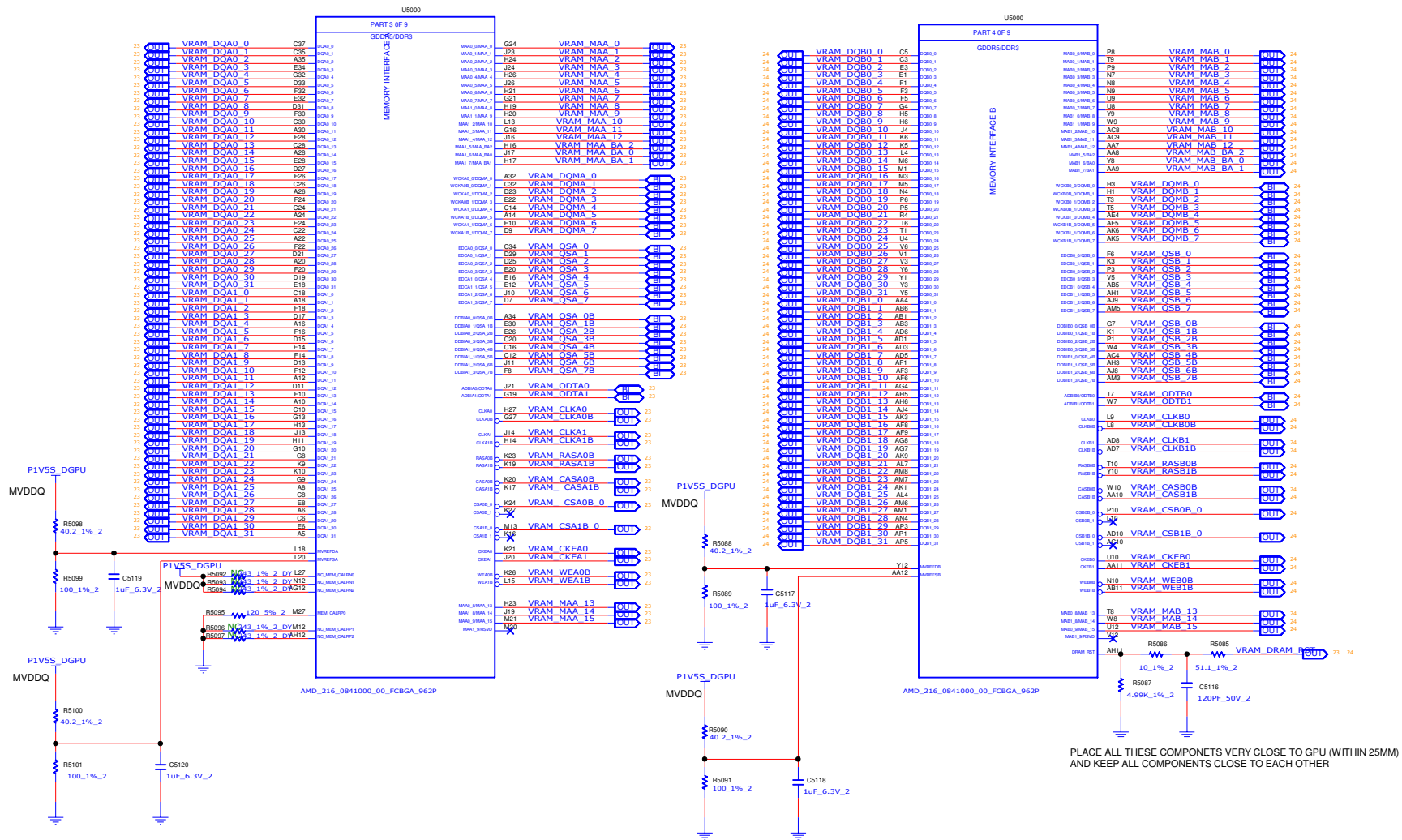
AMD\_216\_0B41000\_00\_FCBGA\_962P

T&I

TITLE			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXX-0-0	X01
SHEET		37	of 77

CHANGE BY: yxy DATE: 22-JULY-2017





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T&I

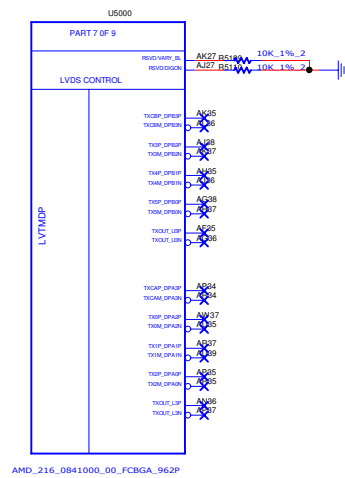
MODEL,PROJECT,FUNCTION  
Block Diagram

SIZE CODE DOC NUMBER  
1310XXXXX-0-0

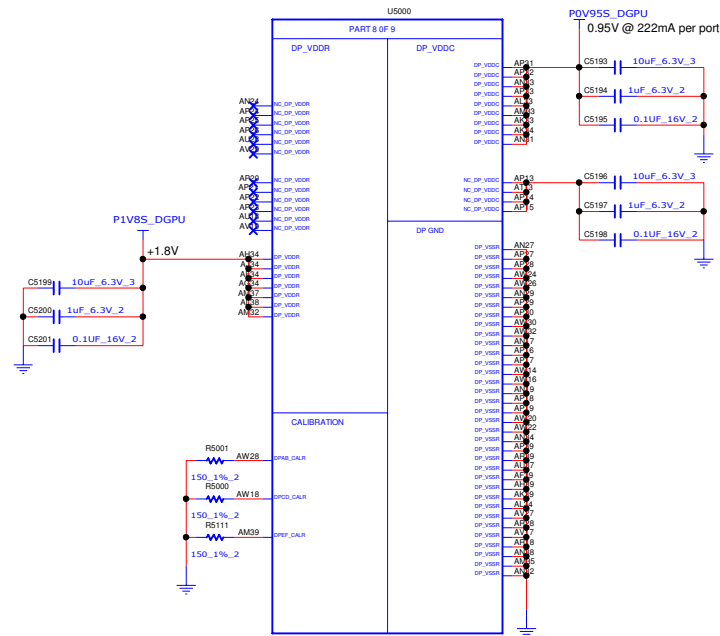
SHEET 38 of 77

CHANGE BY: yxy DATE: 22-JULY-2012

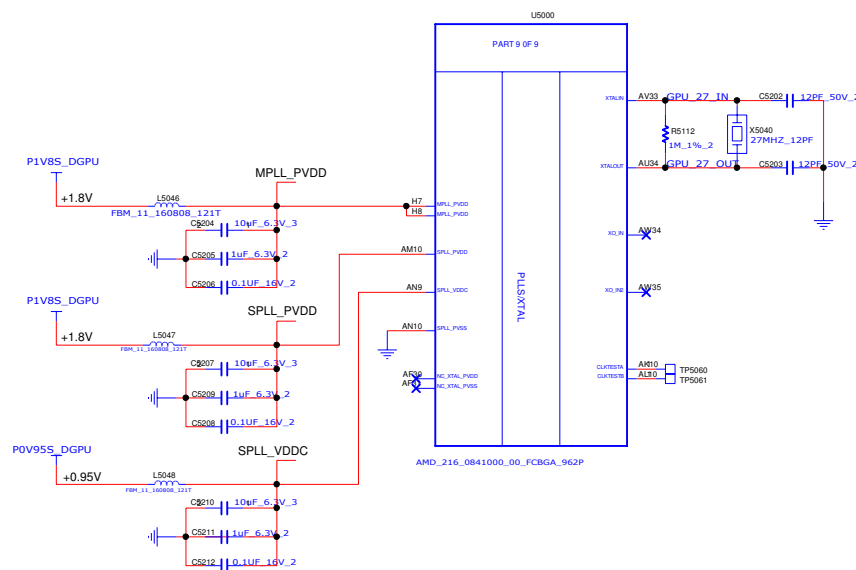




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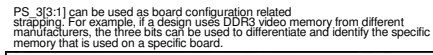


AMD\_216\_0841000\_00\_FCBGA\_962P



AMD\_216\_0841000\_00\_FCBGA\_962P

T&I			
MODEL, PROJECT, FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXX-0-0	X01
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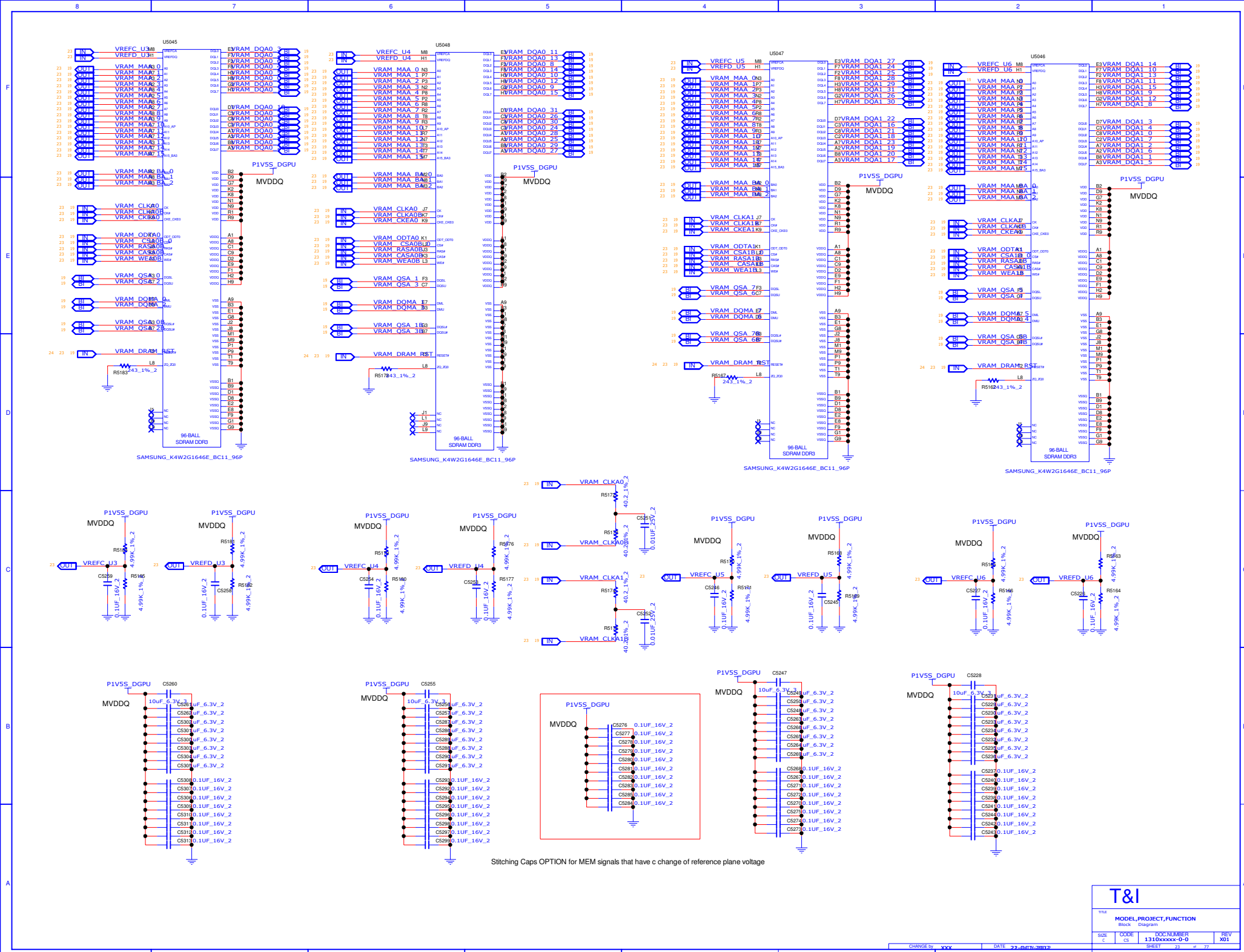


PS_3				
R_pu (Ω)	R_pd (Ω)	Bits [3:1]	Vender	Memory Type
NC	4750	000	MIC	MT41J128M16JT-093G:K 2Gb 1Ghz gDDR3
8450	2000	001	Samsung	K4W2G1646E-BC1A 2Gb 1Ghz gDDR3
4530	2000	010	Samsung	MT41K256M16HA-107G:E 4Gb900Mhz gDDR3
6980	4990	011	MIC	K4W4G1646B-HC11 4Gb 900Mhz gDDR3
4530	4990	100		
3240	5620	101		
3400	10000	110		
4750	NC	111		

Note: 0402 1% resistors are required

## Power Xpress

High (3.3 V) switches the regulators off (enter BACO mode).  
Low (0 V) switches the regulators on. (Default)



Stitching Caps OPTION for MEM signals that have c change of reference plane voltage

T&I

FILE

MODEL,PROJECT,FUNCTION

SIZE

CODE

DATE

23-06-2023

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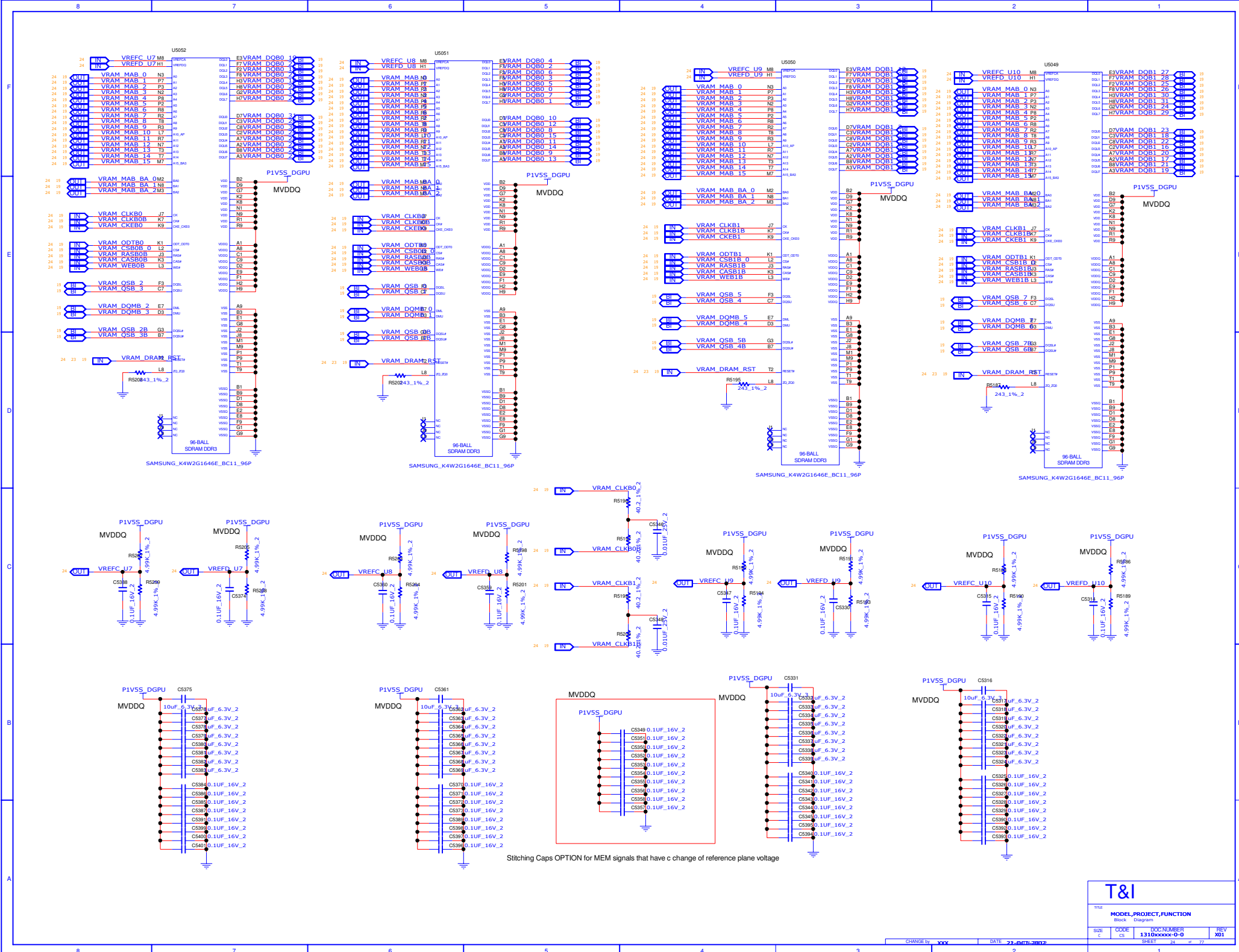
Block

Diagram

1310xxxx-0-0

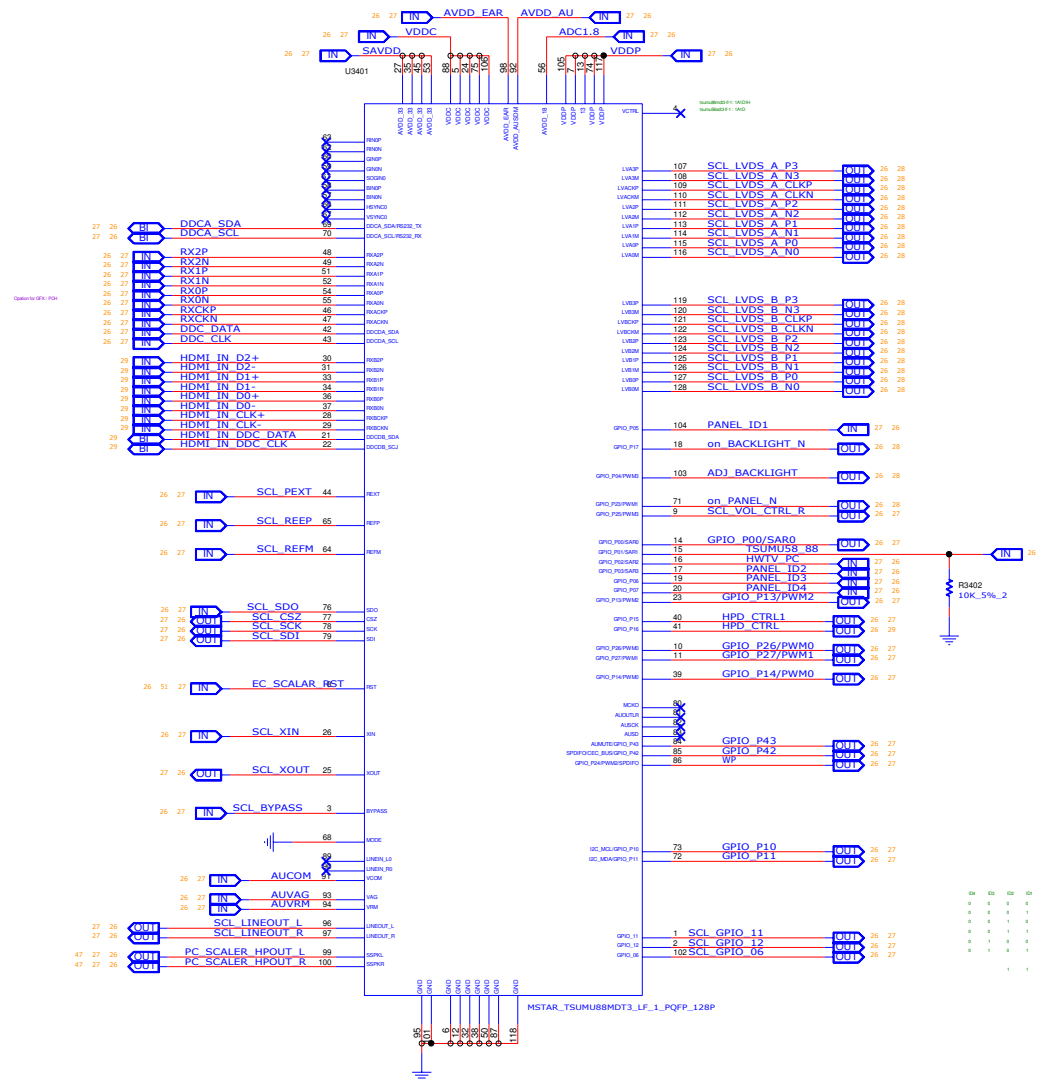
REV

X01





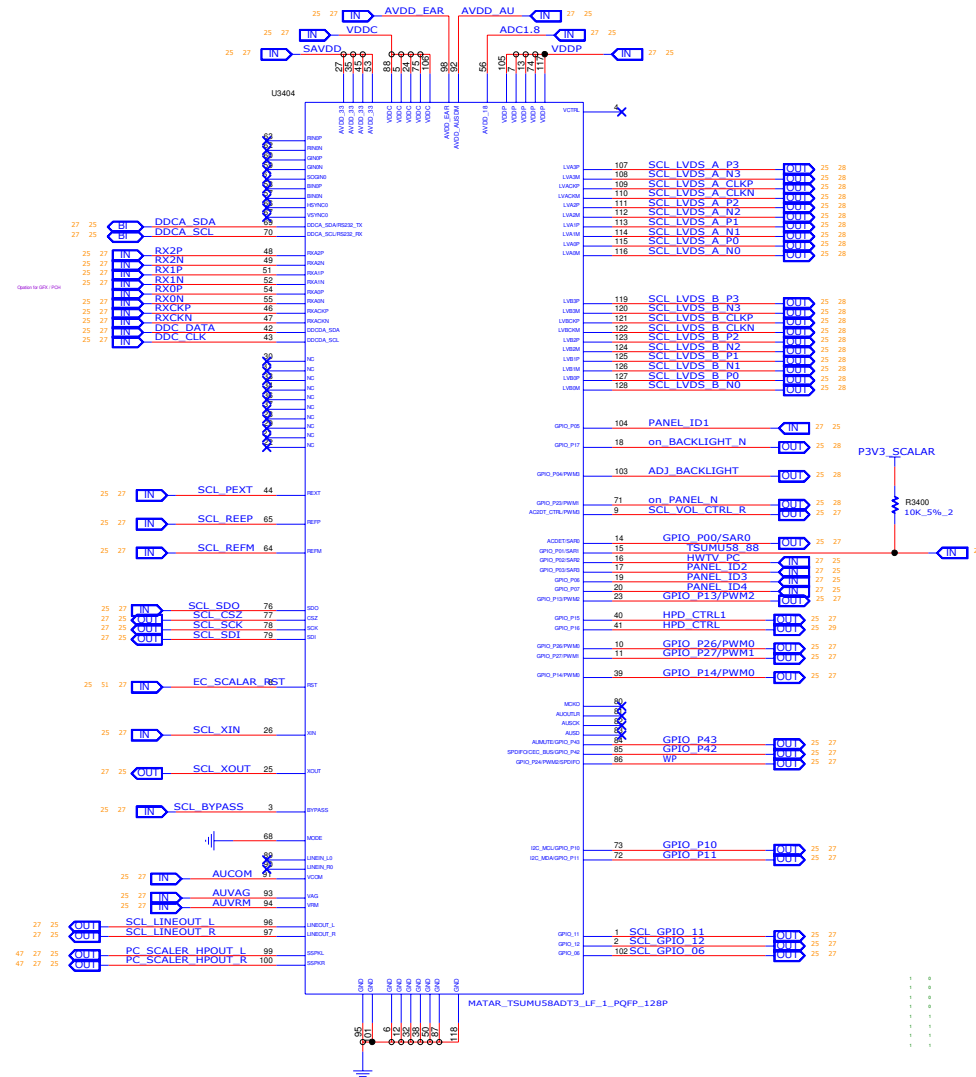
Scalar88 P/N: 6019B1026901  
Scalar58 P/N: 6019B0957101

[illegible]

T&I			
TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE C	CODE CS	DOC NUMBER 1310XXXXXX-0-0	REV X01
SHEET 25 of 77			

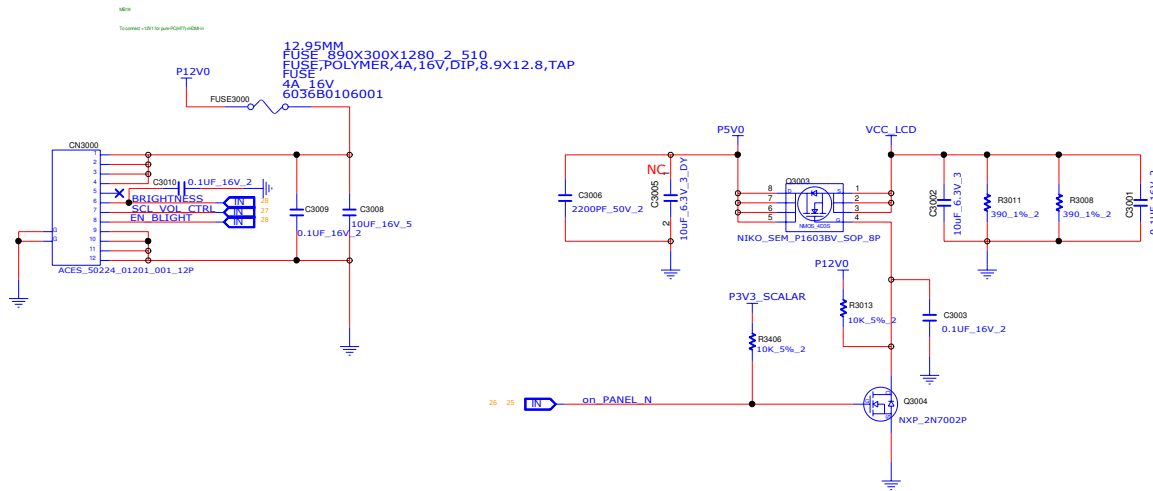
# SCALAR TSUMU58ADT3

U3401 & U3404 need to place the same location.

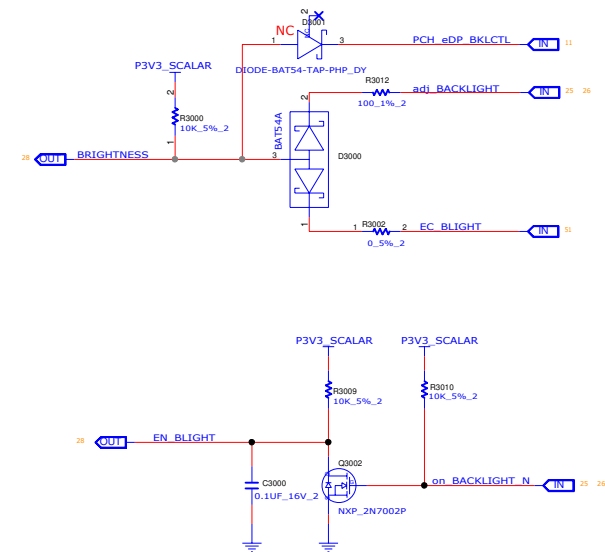




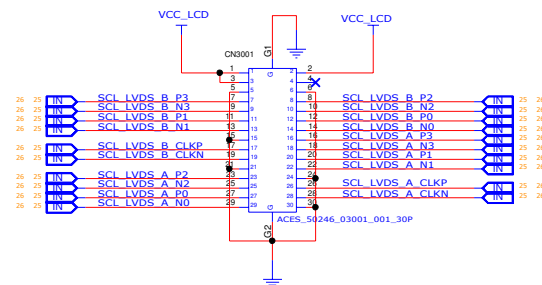
# CONVERTER CONN.



# BRIGHTNESS CONTROL



# LVDS OUT



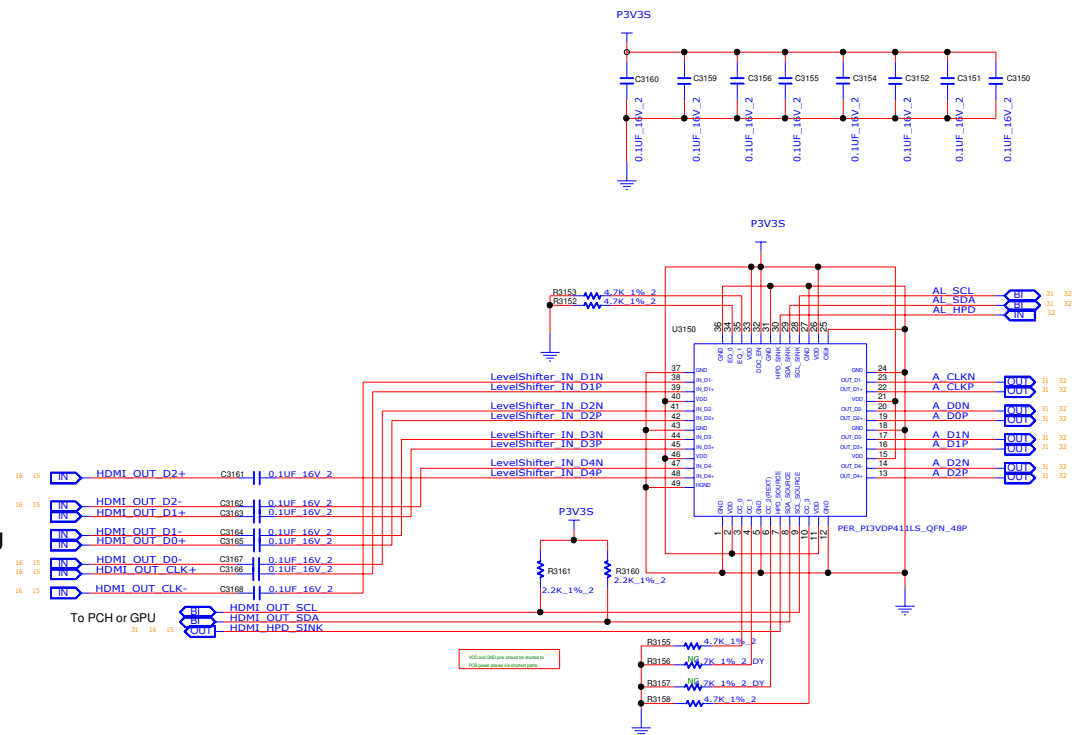
T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
E	CS	1310xxxxx-0-0	X01
SHEET		28	of 27

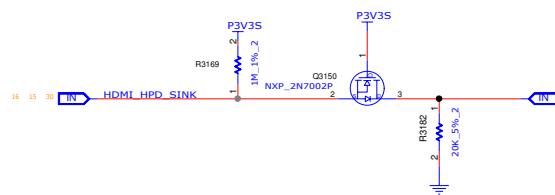
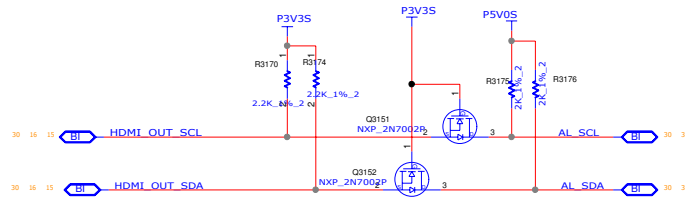
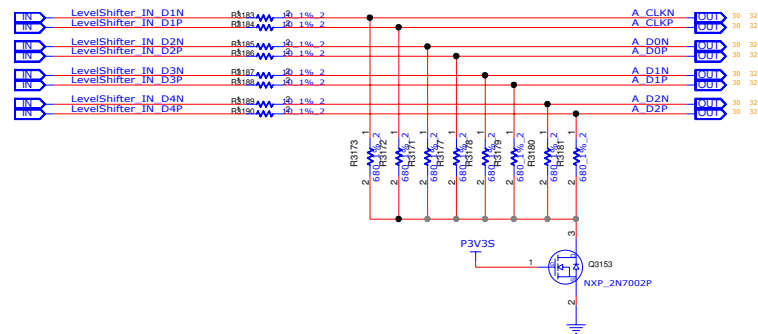
## A



From CPU or GPU



T&I			
Title			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310xxxxx-0-0	X01
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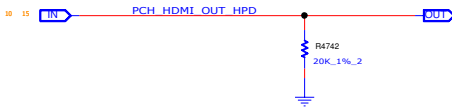
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Block Diagram			
SIZE C	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 32 of 77			



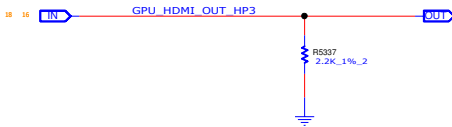


# w/o HDMI OUT

For PCH HPD disable

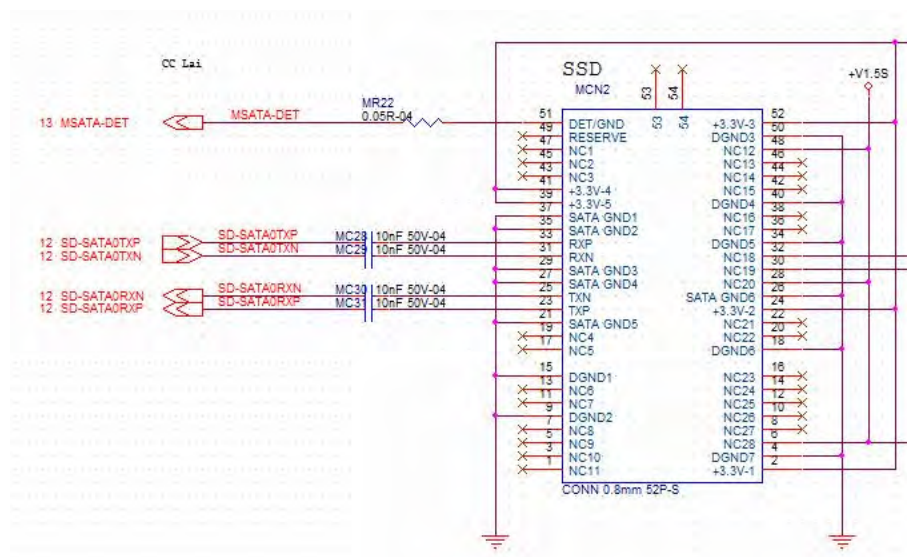
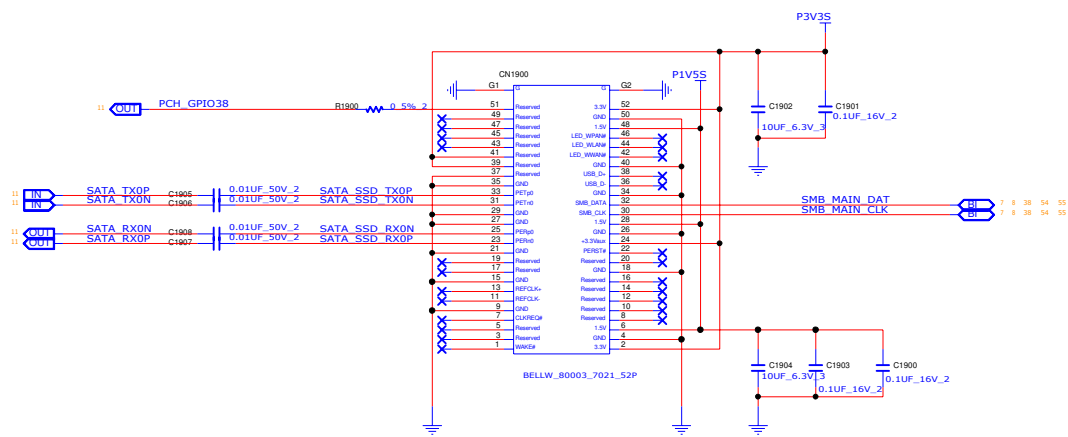


For GPU HPD disable

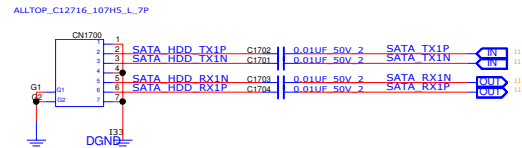


T&I			
Title			
MODEL,PROJECT,FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310xxxxx-0-0	X01
SHEET		31	of 77

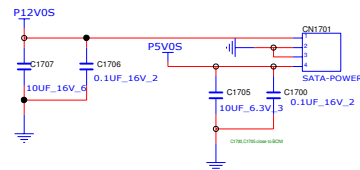
# SSD CONNECTOR



# HDD CONNECTOR



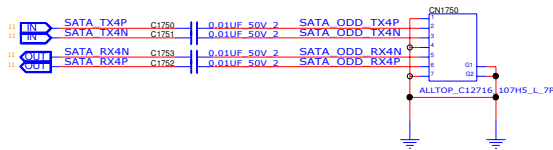
# PWR SATA CONN.



T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310xxxxx-0-0	X01
SHEET		35	of 77

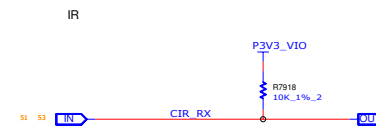
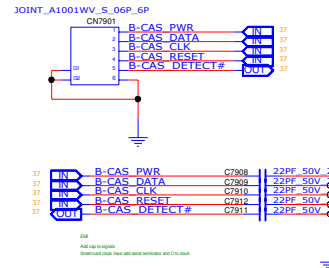
ODD CONNECTOR



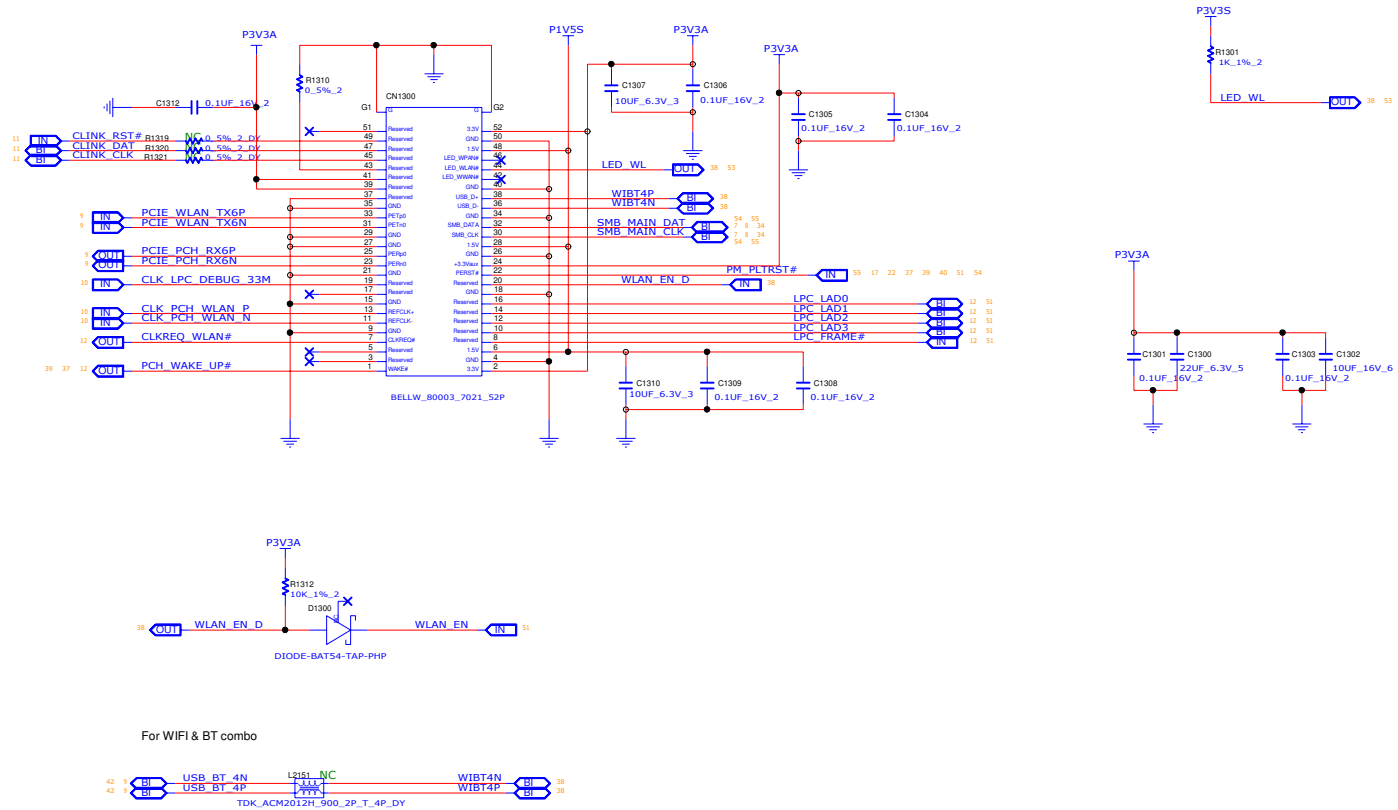
T&I

TITLE			
MODEL, PROJECT, FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310xxxxx-0-0	X01
SHEET		36	of 77

NEC-B CAS



# Mini PCI-e Card for WLAN

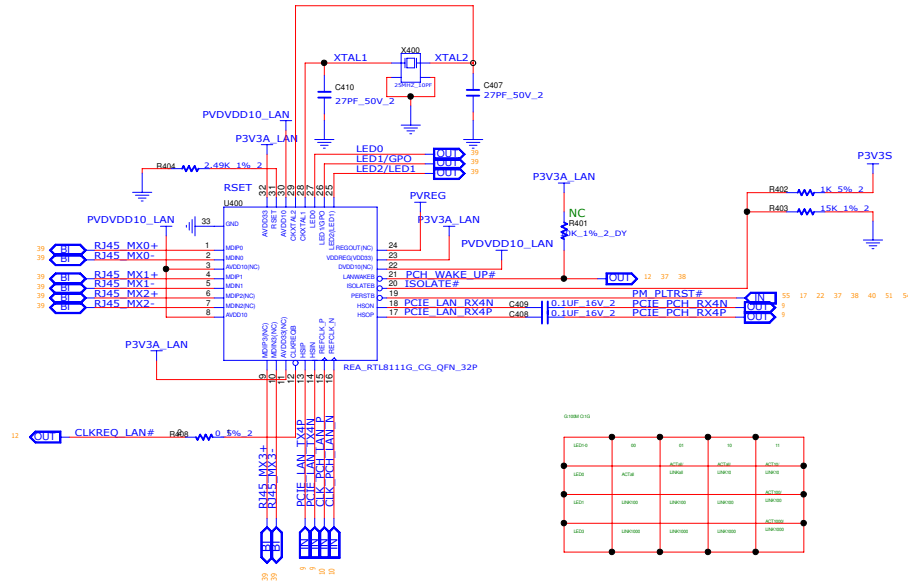


T&I

TITLE			
MODEL, PROJECT, FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXX-0-0	X01
SHEET		38	of 77

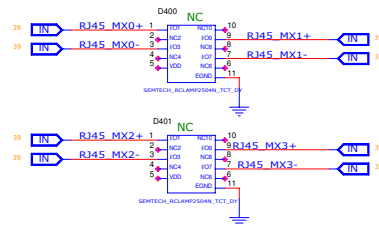
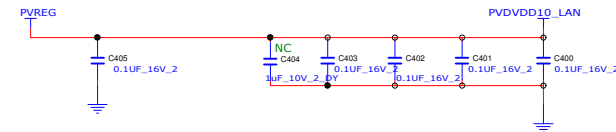
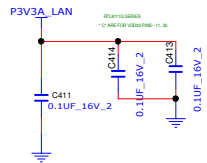
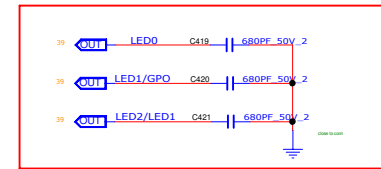
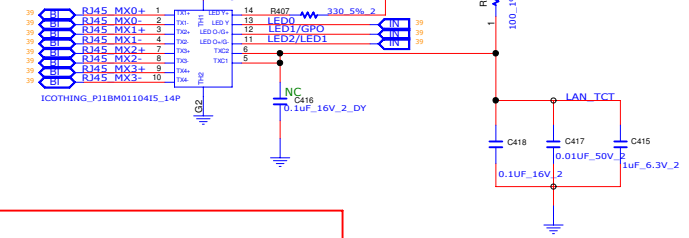
CHANGE BY: yxyx DATE: 22-JULY-2012

# LAN RTL8111G



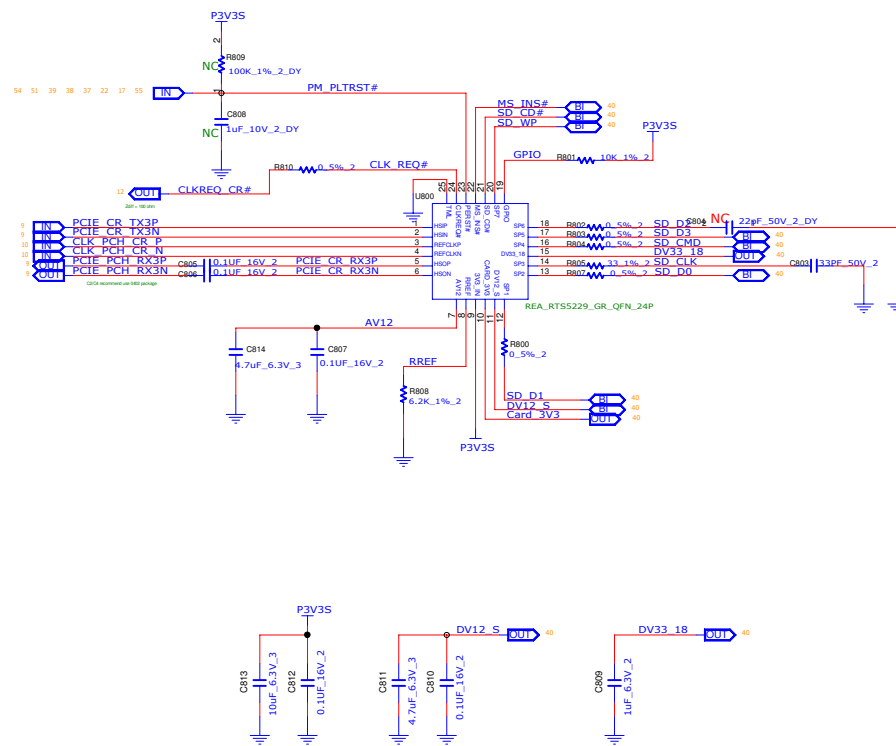
Ivan  
Need to change IT

Need to change IT

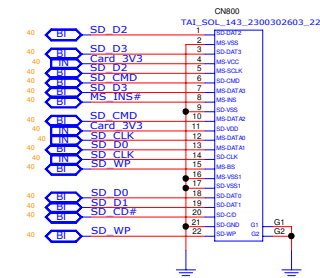


T&I			
TITLE			
MODEL, PROJECT, FUNCTION			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310xxxxxx-0-0	X01
SHEET		39	of 77

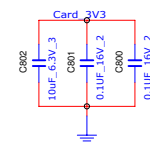
# CARD READER RTS5229



PN => 6026B0249501  
Wait footprint => ???



Combo socket



T&I

TITLE			
MODEL, PROJECT, FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXX-0-0	X01
SHEET		49	of 77

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**F**

**E**

**D**

**C**

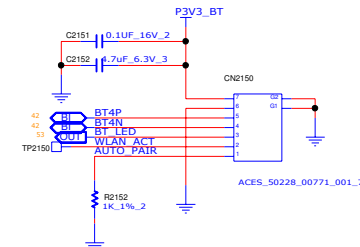
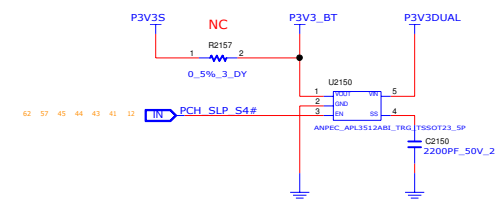
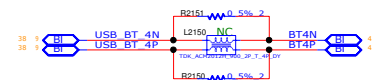
**B**



2

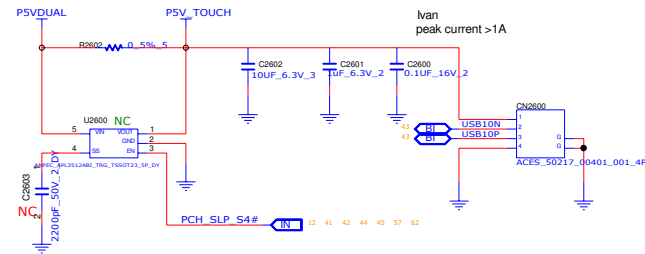
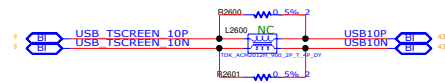
A

# BLUETOOTH



T&I			
TITLE			
MODEL,PROJECT,FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXX-0-0	X01
SHEET		42	of 77

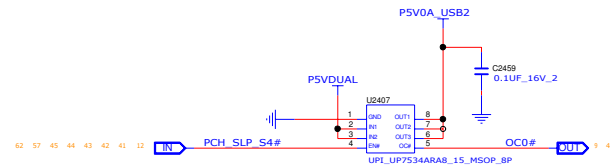
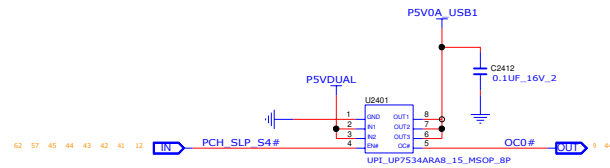
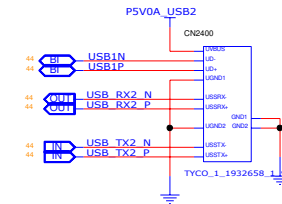
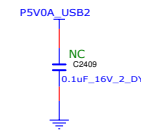
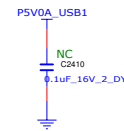
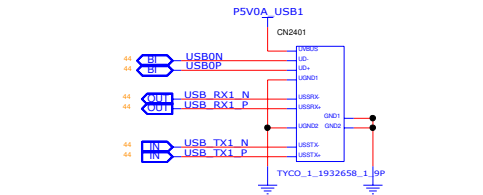
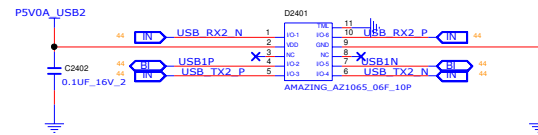
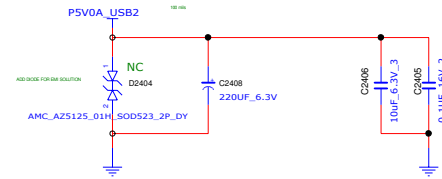
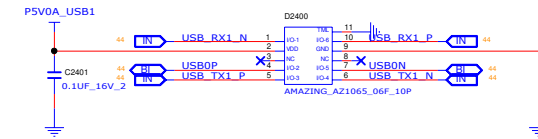
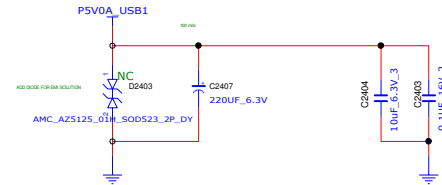
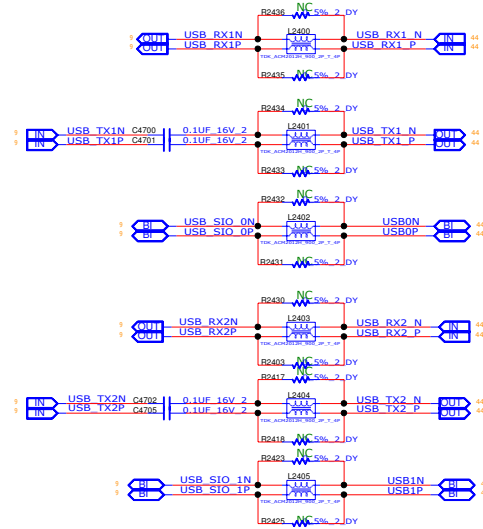
# TOUCH SCREEN



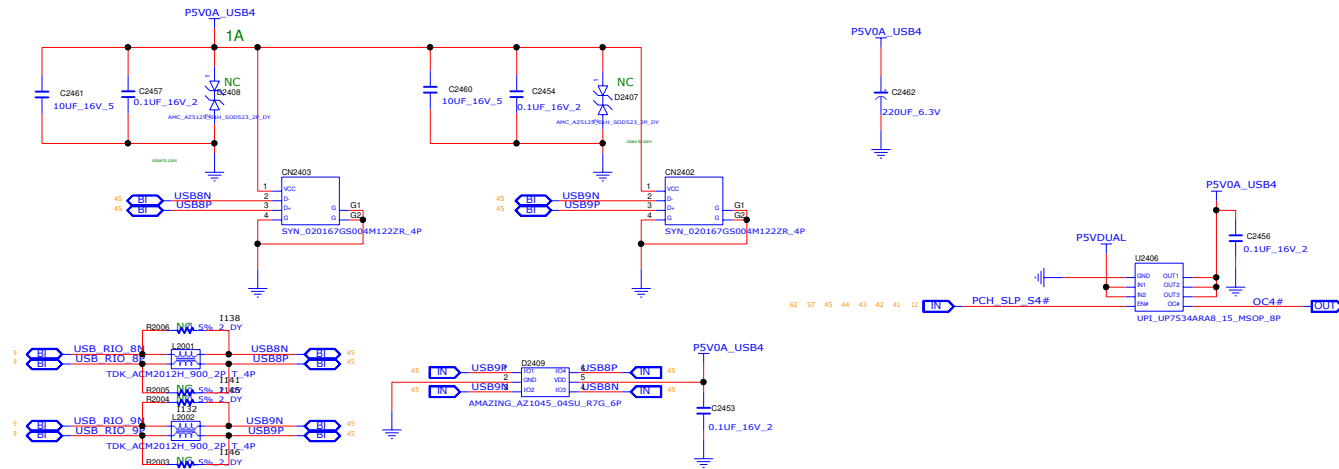
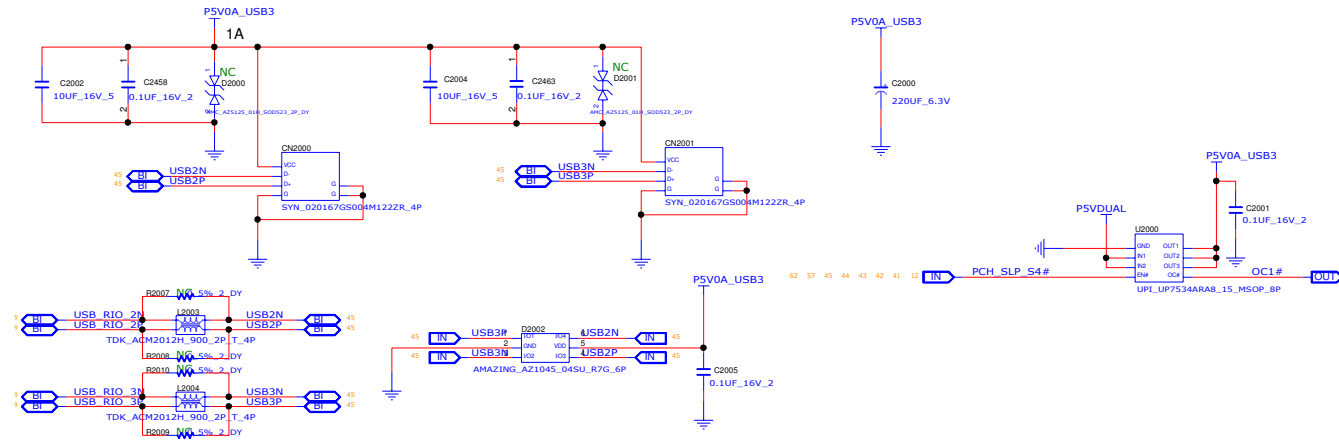
T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXX-0-0	X01
SHEET		43	of 77

# USB3.0 CONNX2



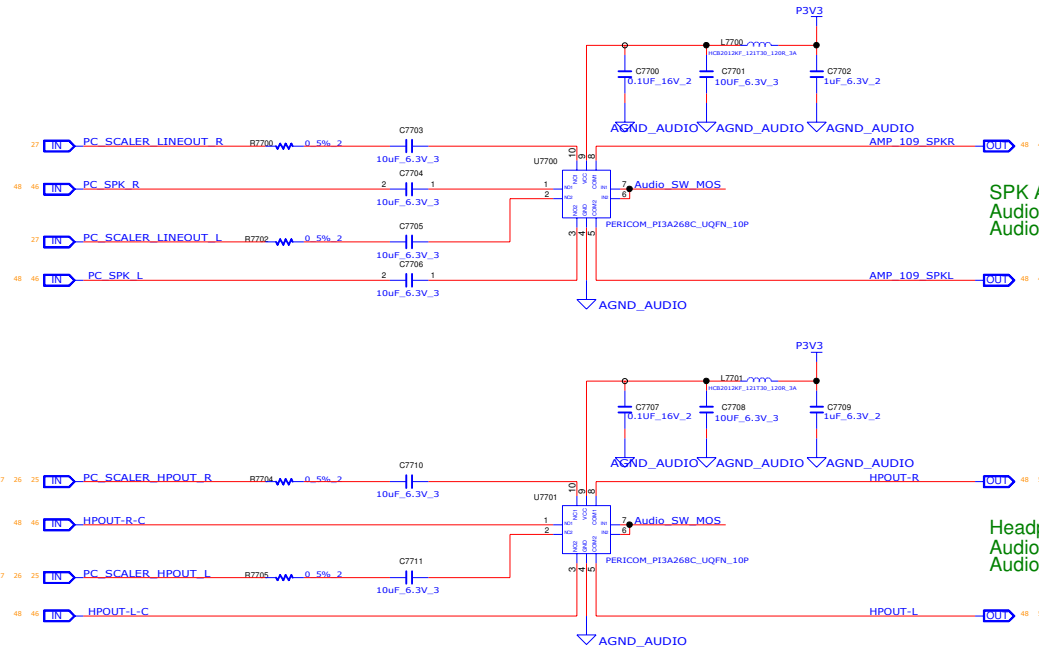
# Rear USB2.0 CONN x4



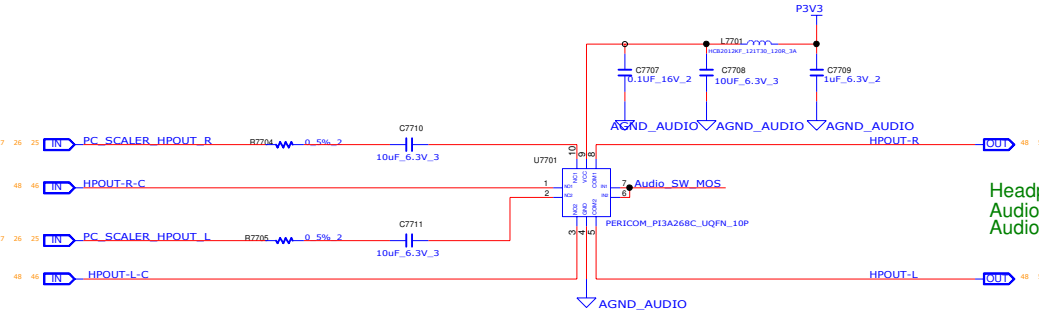
**F** **E** **D** **C** **B**

A

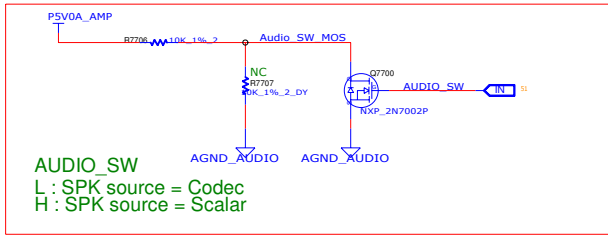
# AUDIO SWITCH for HDMI-IN



SPK AMP source patch select (Codec / Scalar)  
Audio\_SW\_MOS = 0 ; NC1=COM1,NC2=COM2  
Audio\_SW\_MOS = 1 ; NO1=COM1,NO2=COM2



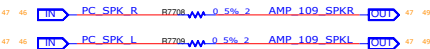
Headphone source patch select (Codec / Scalar)  
Audio\_SW\_MOS = 0 ; NC1=COM1,NC2=COM2  
Audio\_SW\_MOS = 1 ; NO1=COM1,NO2=COM2



AUDIO\_SW  
L : SPK source = Codec  
H : SPK source = Scalar

T&I			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOCNUMBER	REV
C	CS	1310XXXX-0-0	X01
SHEET		47	# 72

# AUDIO SWITCH for w/o HDMI-IN

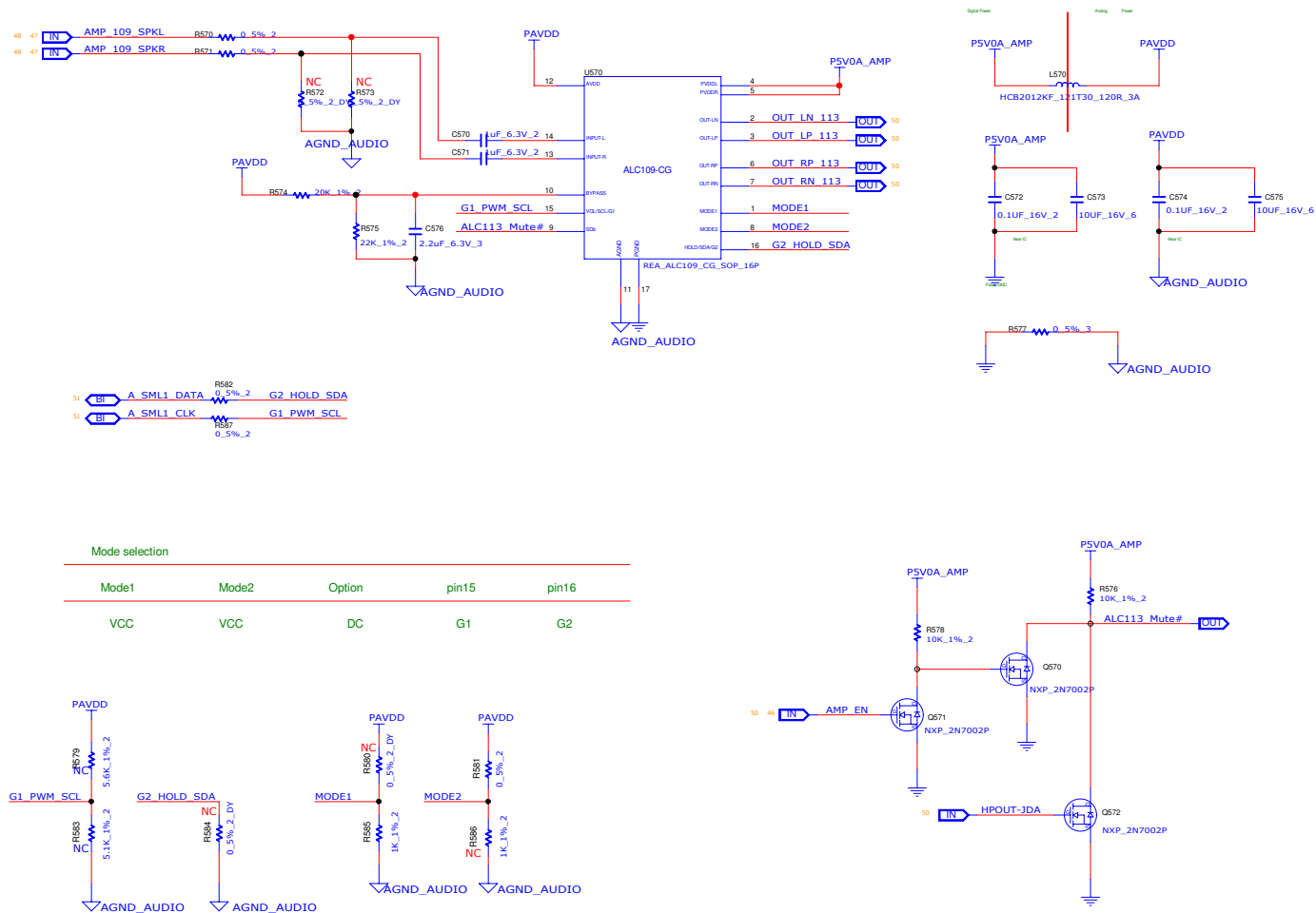


T&I			
TITLE			
MODEL,PROJECT,FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXX-0-0	X01
SHEET		48	of 77



T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE C	CODE CS	DOC NUMBER 1310xxxxxx-0-0	REV X01
SHEET 49 of 77			

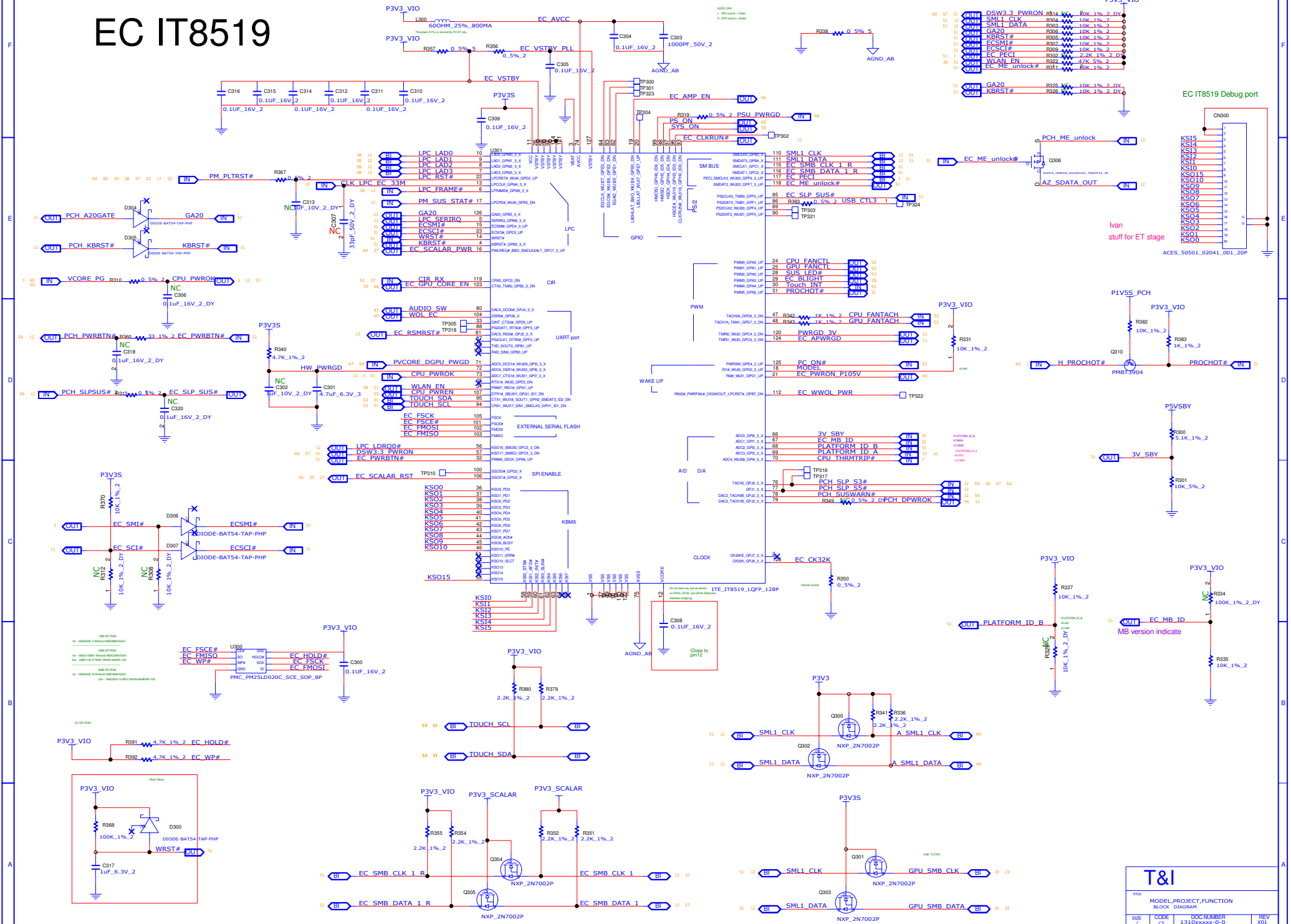


A B C D E F

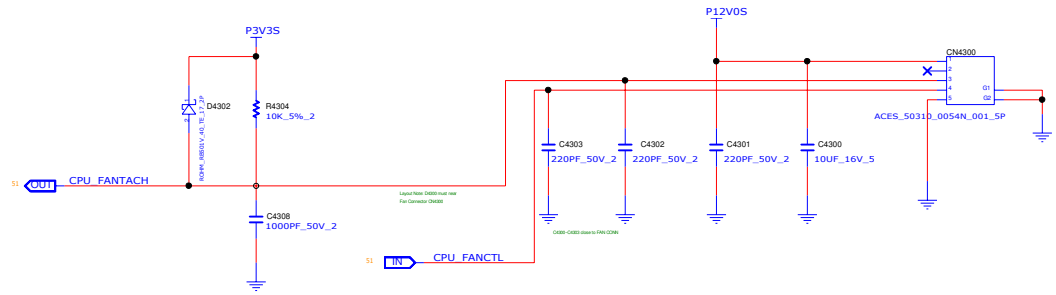


T&I			
TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE C	CODE CS	DOC NUMBER 1310xxxxxx-0-0	REV X01
SHEET 50 of 77			

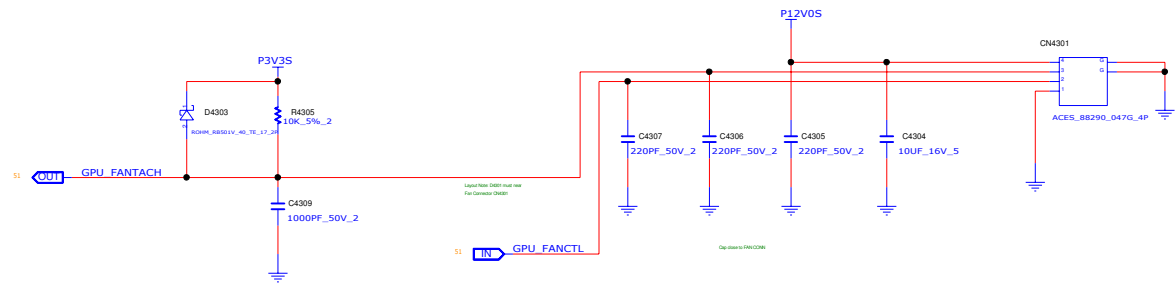
# EC IT8519



# CPU FAN



# GPU FAN



T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXX-0-0	X01
SHEET		52	of 77

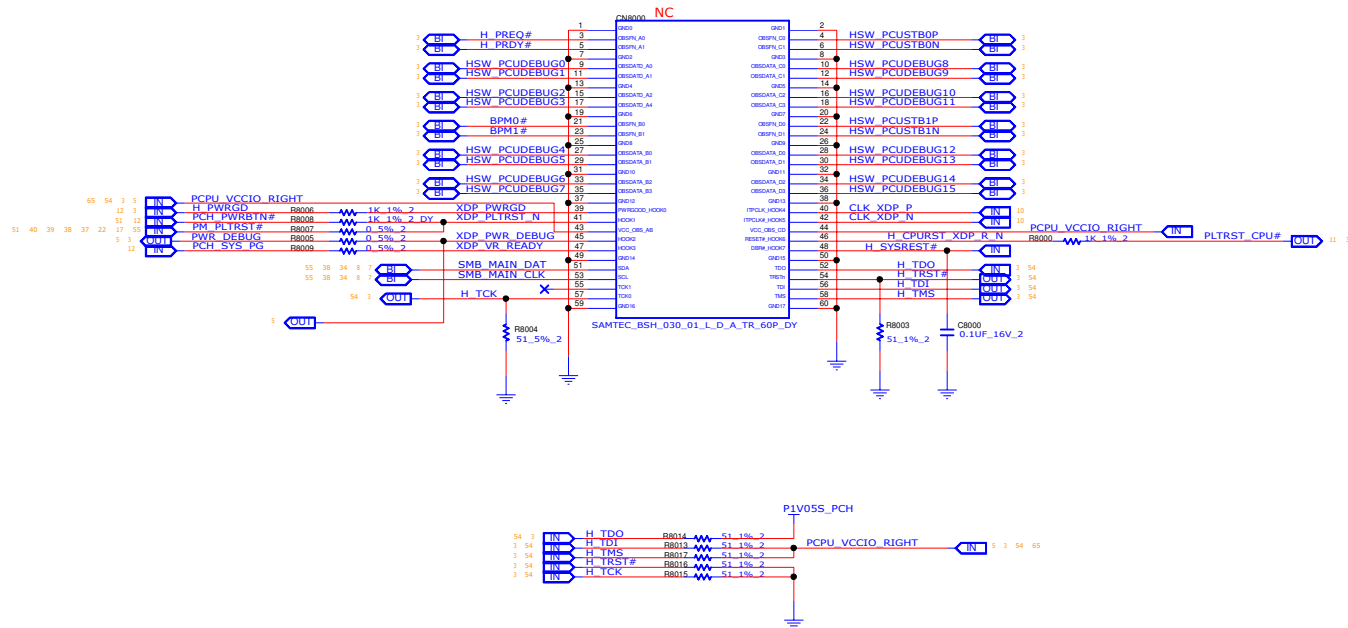
## F



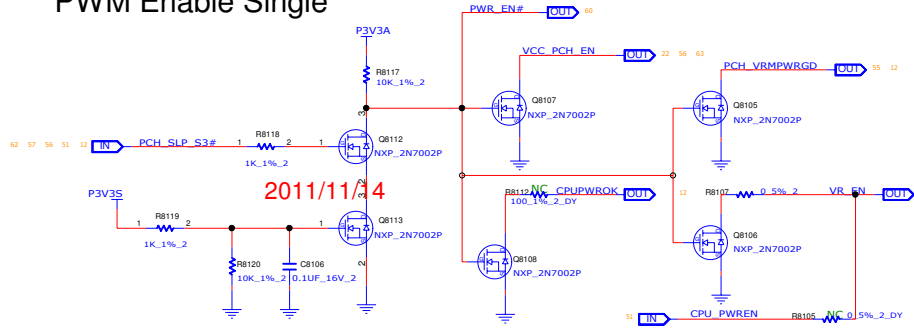
## D

A

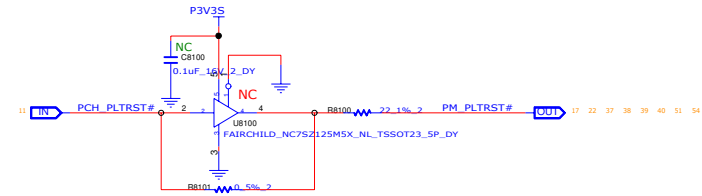
## XDP CONNECTOR



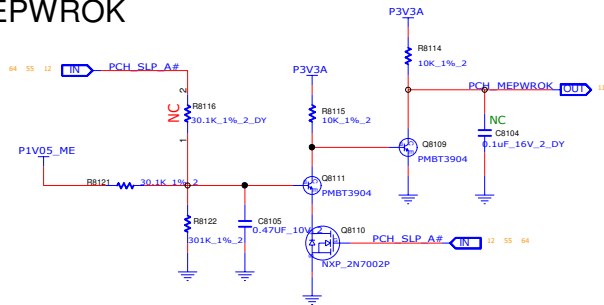
## PWM Enable Single



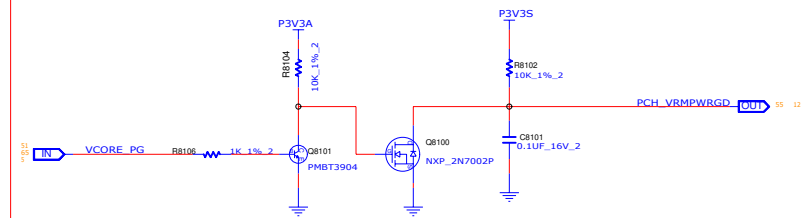
## Reset Single



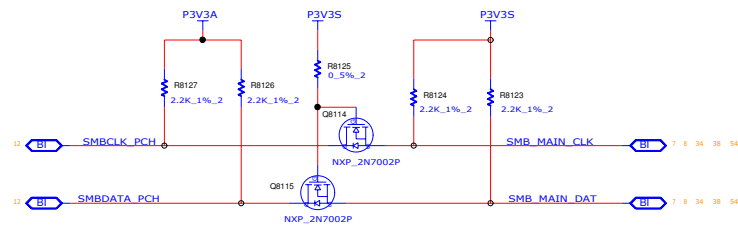
## PCH\_MEPWROK



## PCH\_VRMPWRGD (VR\_READY)



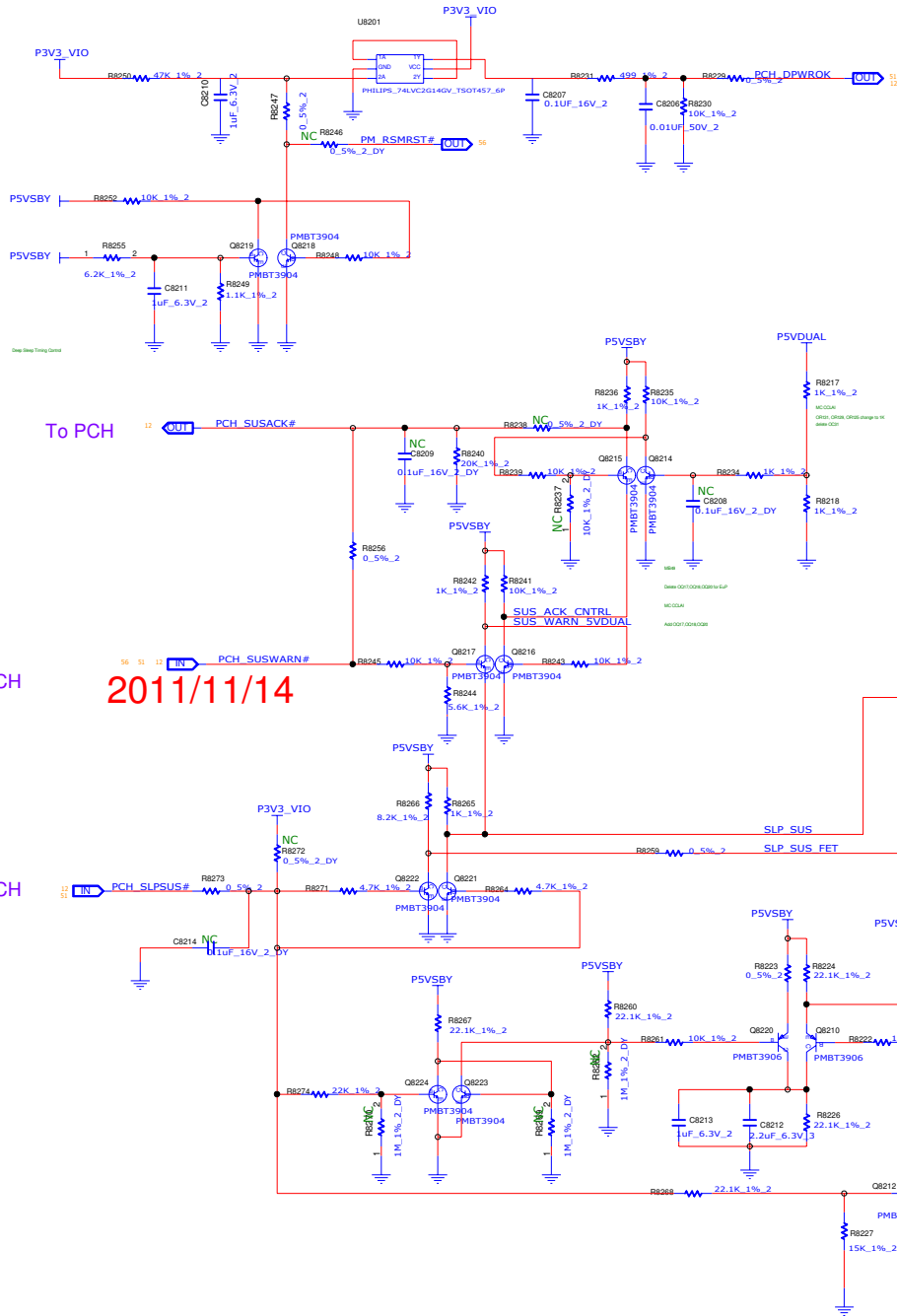
## SM BUS



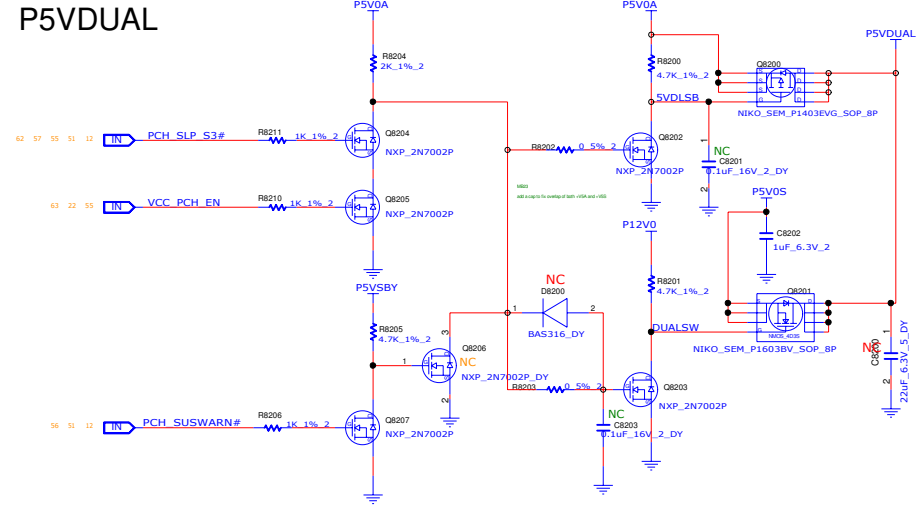
T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXX-0-0	X01
SHEET		55	77

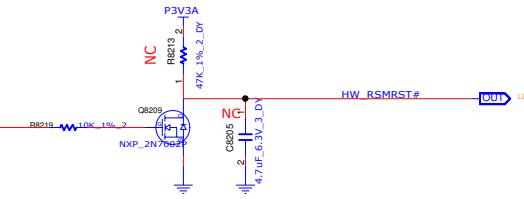
## PCH\_DPWROK



## P5VDUAL



## RSMRST circuit



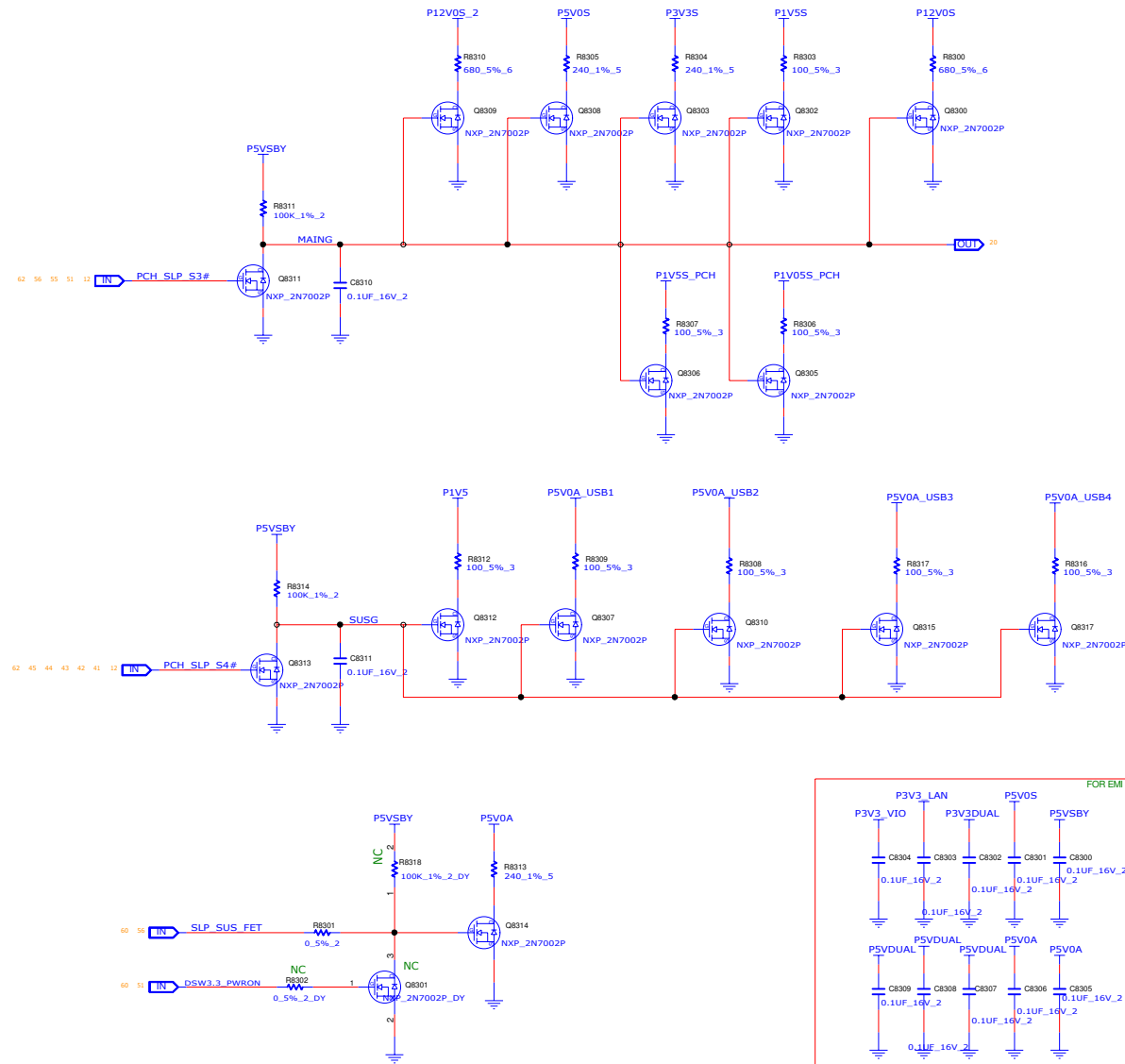
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T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE C	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 56 of 77			

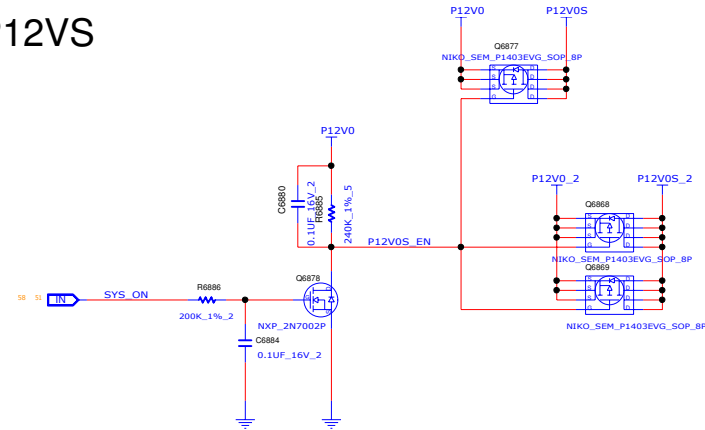


# DISCHARGER

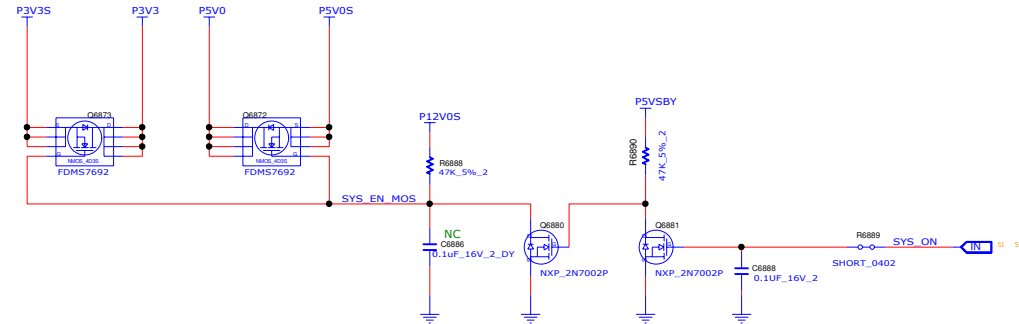


# Power for HDMI-IN

## P12VS



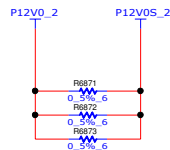
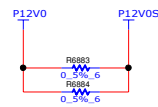
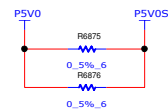
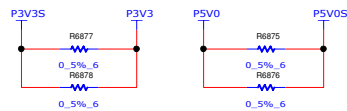
## P3V3S & P5V0S



T&I

TITLE			
MODEL, PROJECT, FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXX-0-0	X01
SHEET		58	of 77

# Power for w/o HDMI-IN



T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE C	CODE CS	DOC NUMBER 1310XXXXX-0-0	REV X01
CHANGE BY XXX		DATE 22-JULY-2012	SHEET 29 of 27

## 2011/11/14



	A	B	C	D	E	F
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A

STATE	S3	S5	VREF	VDDQ	VTTREF	VTT
S0	HI	HI	ON	ON	ON	ON
S3	LO	HI	ON	ON	ON	OFF(High-Z)
S4/S5	LO	LO	OFF	OFF(Discharge)	OFF(Discharge)	OFF(Discharge)

STATE	S3	S5	VREF	VDDQ	VTTREF	VTT
S0	HI	HI	ON	ON	ON	ON
S3	LO	HI	ON	ON	ON	OFF(High-Z)
S4/S5	LO	LO	OFF	OFF(Discharge)	OFF(Discharge)	OFF(Discharge)

STATE	S3	S6	VREF	VDDQ	VTTREF	VTT
S0	H	H	ON	ON	ON	ON
S3	L	H	ON	ON	ON	OFF (High-Z)
HA/S5	L	L	OFF	OFF (Discharge)	OFF (Discharge)	OFF (Discharge)

STATE	S3	S6	VREF	VDDQ	VTTREF	VTT
S0	H	H	ON	ON	ON	ON
S3	L	H	ON	ON	ON	OFF (High-Z)
HA/S5	L	L	OFF	OFF (Discharge)	OFF (Discharge)	OFF (Discharge)

MODE NO.	RESISTANCE BETWEEN MODE AND GND (k $\Omega$ )	SWITCHING FREQUENCY (kHz)	DISCHARGE MODE
3	200	400	Tracking
2	100	300	
1	10	300	Non-tracking
0	47	400	

MODE NO.	RESISTANCE BETWEEN MODE AND GND (k $\Omega$ )	SWITCHING FREQUENCY (kHz)	DISCHARGE MODE
3	200	400	Tracking
2	100	300	
1	10	300	Non-tracking
0	47	400	

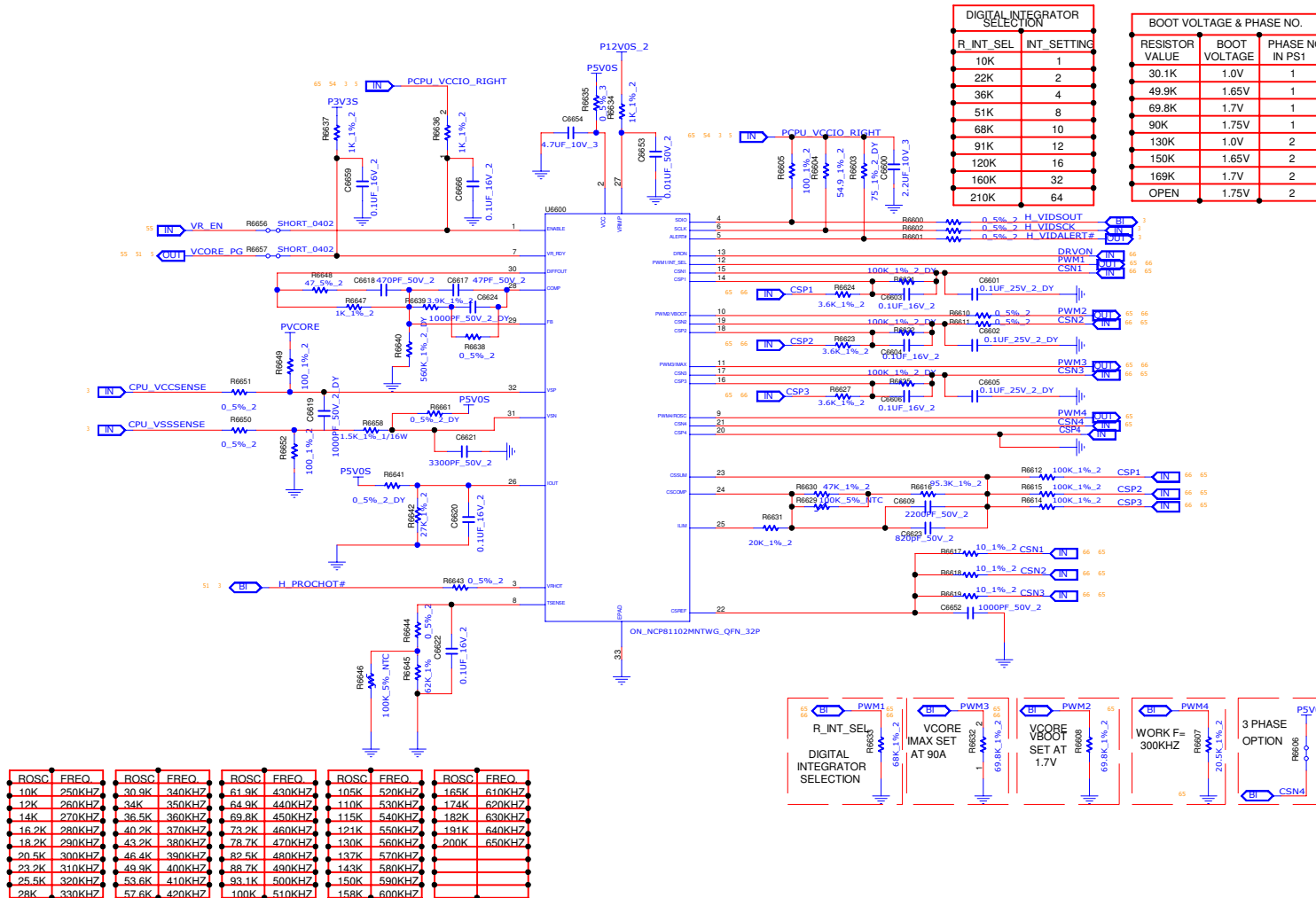
T&I			
TITLE			
MODEL, PROJECT, FUNCTION BLOCK DIAGRAM			
SIZE C	CODE CS	DOC NUMBER 1310xxxxx-0-0	REV X01
SHEET 63 of 77			

A	
B	
C	
D	
E	
F	

A



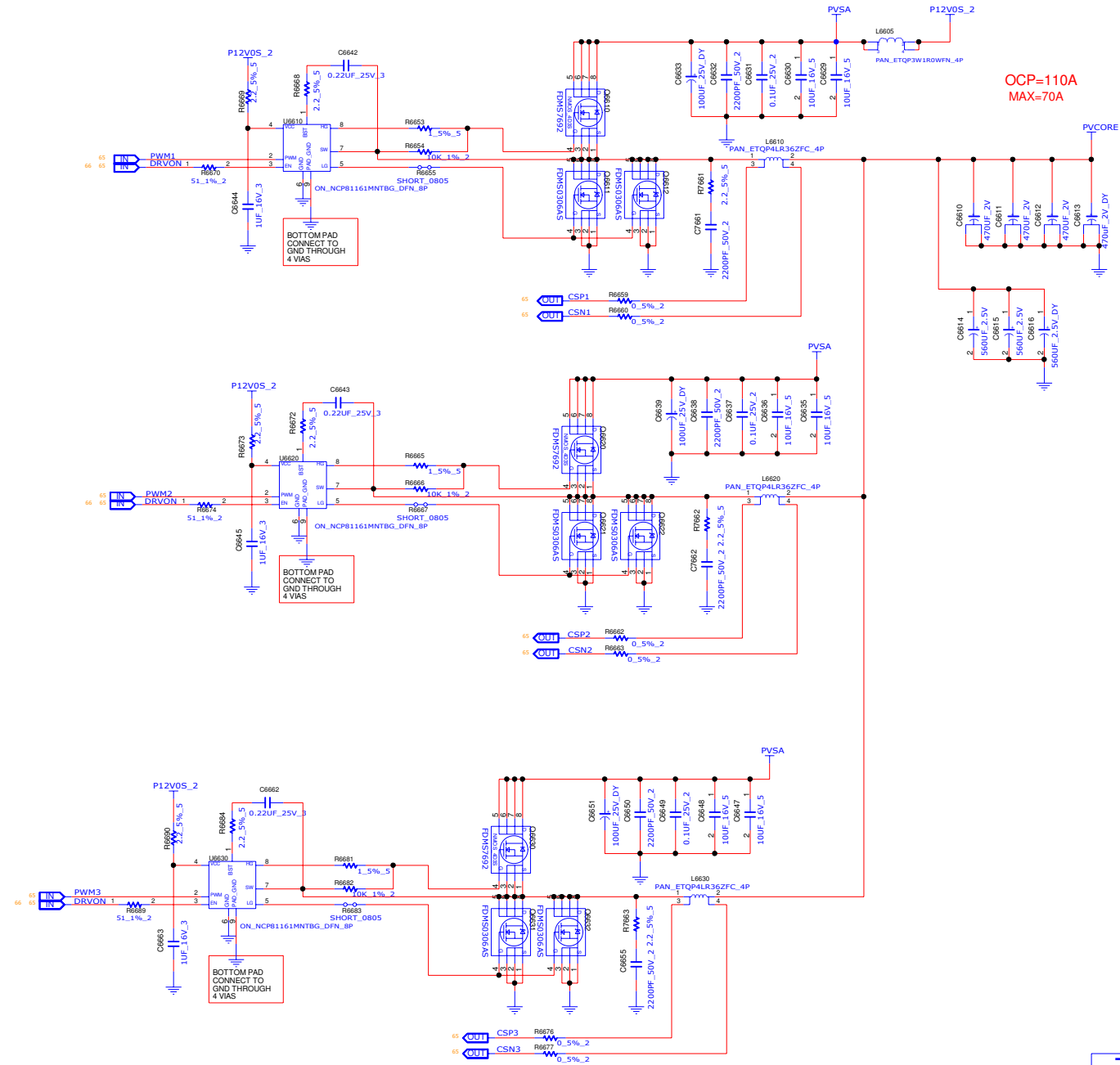
# NCP81102 1/2 (P)



T&I

TITLE			
MODEL,PROJECT,FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
E	CS	1310XXXX-0-0	X01
SHEET		65	of 77

# NCP81102\_MOS 2/2 (P)

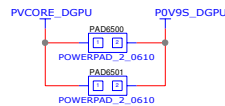


T&I

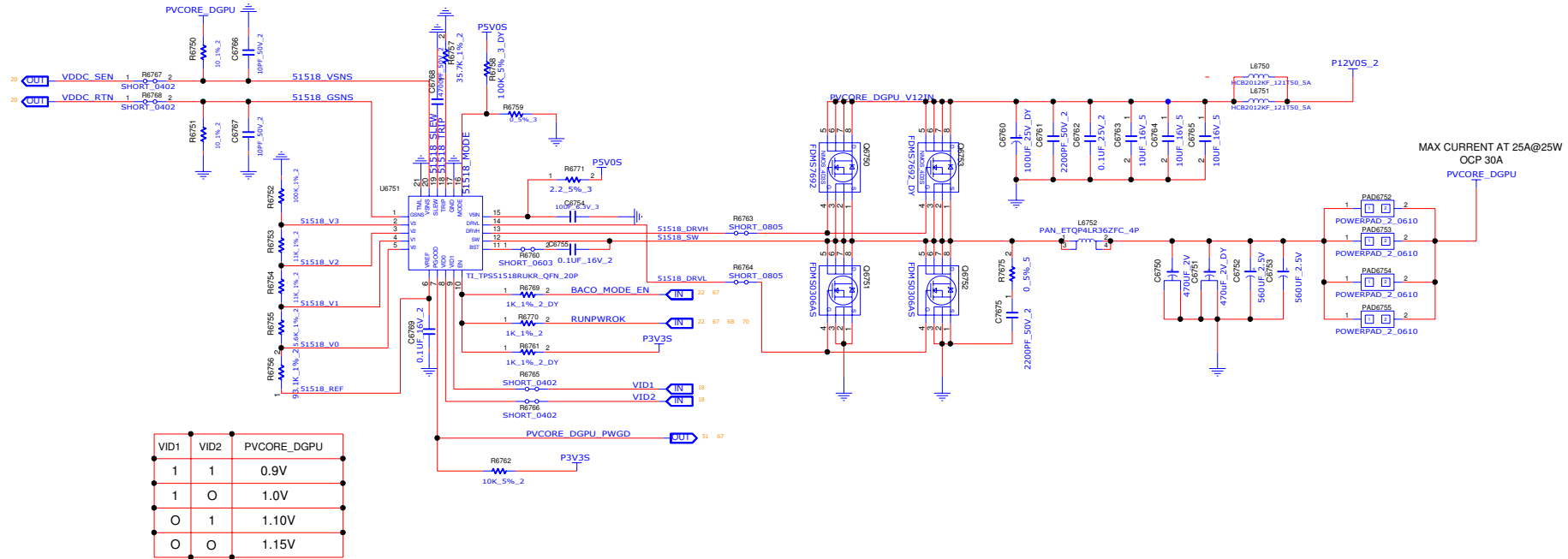
TITLE			
MODEL,PROJECT,FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	1310XXXXX-0-0	X01	
SHEET		66	of 77

<div style="text-align: center; font-size: 2em; font-weight: bold;">T&amp;I</div>			
TITLE <div style="text-align: center; font-weight: bold;">MODEL, PROJECT, FUNCTION BLOCK    DIAGRAM</div>			
SIZE C	CODE CS	DOC NUMBER 1310XXXXX-0-0	REV X01
SHEET    67    of    77			

## ATI\_0.9V (VDDCI) (P)



# ATI\_VDDC\_25W (P)



T&I

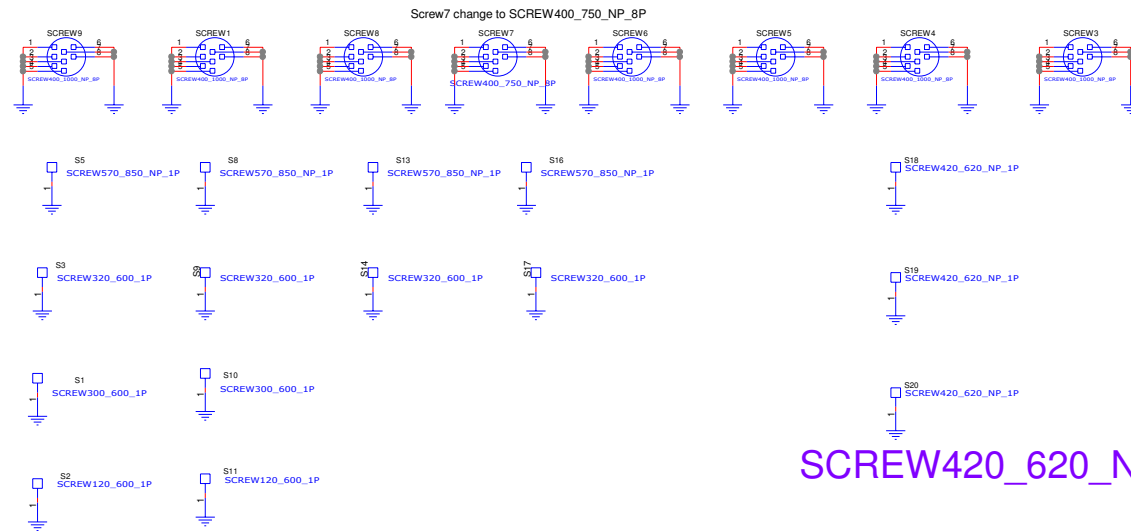
TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
E	CS	1310XXXX-0-0	X01
SHEET		69	77

CHANGE BY: YXX DATE: 22-JULY-2012



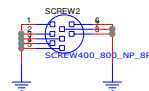
# Screw

Ivan update SCREW400\_1000\_NP\_8P x8



SCREW420\_620\_NP\_1P x 3 for CPU

Ivan update SCREW400\_800\_NP\_8P x1



NPTH	PAD(mm)	孔徑(mm)	pin
Y	10	4	9
N	8.5	5.7	1
N	6	3.2	1
N	6	3	1
N	6	1.2	1
Y	8	4	9
N	8	4	1

已建過，請選 SCREW400\_1000\_NP\_8P

Foot Print done SCREW570\_850\_NP\_1P 0.127mm

已建過，請選 SCREW320\_600\_1P

已建過，請選 SCREW300\_600\_1P

已建過，請選 SCREW120\_600\_1P

Foot Print done SCREW400\_800\_NP\_8P 0.127mm

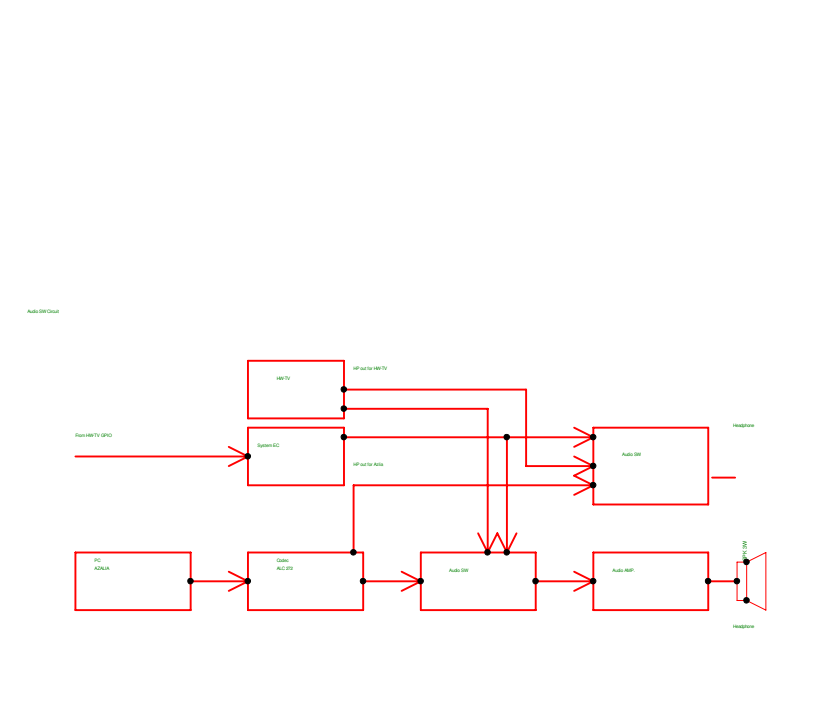
已建過，請選 SCREW400\_800\_1P

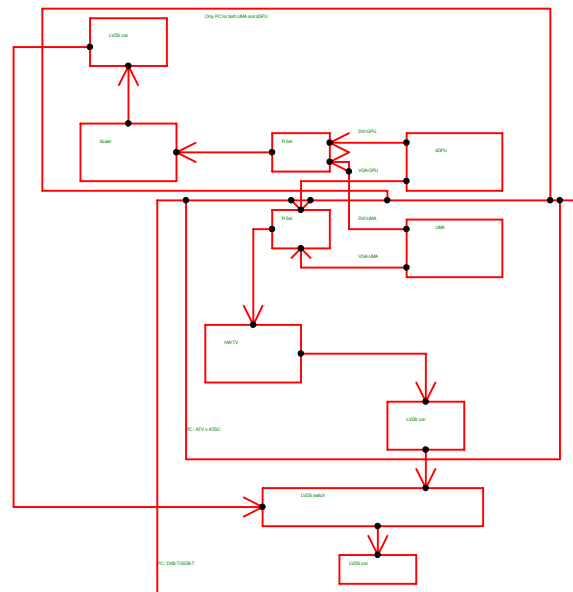
T&I

TITLE			
MODEL,PROJECT,FUNCTION BLOCK DIAGRAM			
SIZE	CODE	DOCNUMBER	REV
C	CS	1310XXXXX-D	X01
SHEET		21	of 22

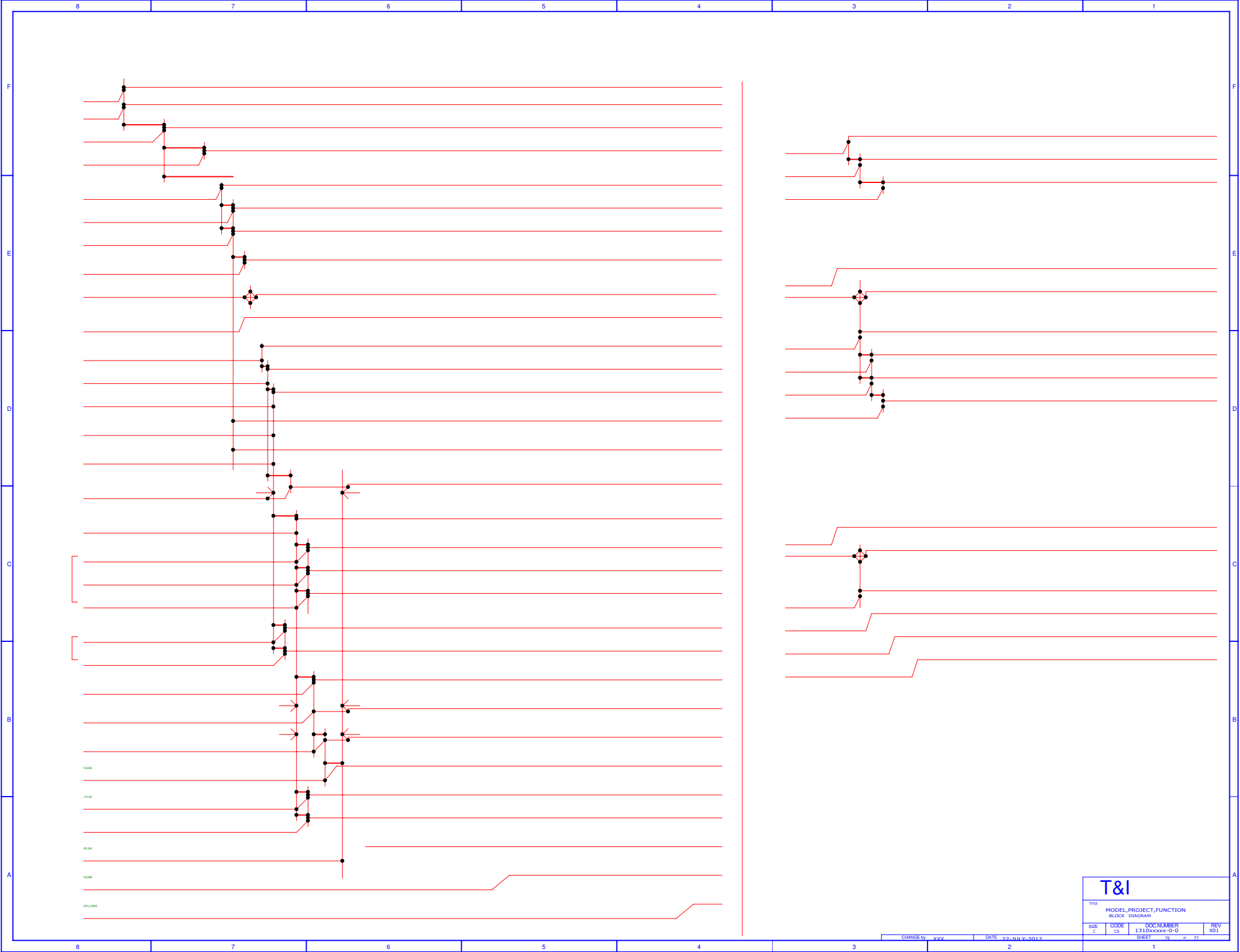
A B C D E F











T&I

TITLE			
MODEL, PROJECT, FUNCTION			
BLOCK DIAGRAM			
SIZE	CODE	DOC NUMBER	REV
C	CS	1310XXXXX-0-0	X01
SHEET		26	of 27

Page Note

T&I
<small>TITLE MODEL_PROJECT_FUNCTION</small>

SIZE C	CODE CS	DOC NUMBER 1310xxxxxx-0-0	REV X01
SHEET 77 of 77			